

PRE-BOARD EXAMINATION (2025-26)
CLASS - X
MATHEMATICS (BASIC) – Code No. 241 (SET- 4)

Maximum marks:80 Time:3 hours

General Instructions: -

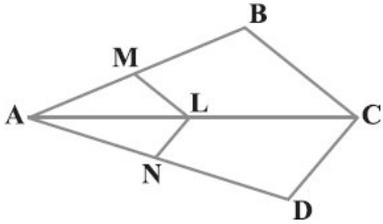
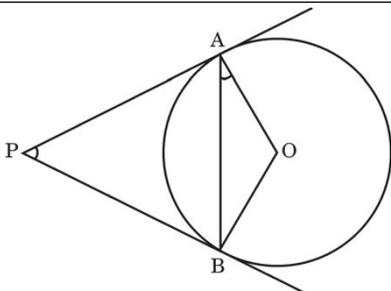
Read the following instructions carefully and follow them: -

1. This question paper contains 38 questions. All Questions are compulsory.
2. This Question Paper is divided into 5 Sections A, B, C, D and E.
3. In Section A, Question numbers 1-18 are multiple choice questions (MCQs) and question no.19 and 20 are Assertion- Reason based questions of 1 mark each.
4. In Section B, Question numbers 21-25 are very short answer (VSA) type questions, carrying 02 marks each.
5. In Section C, Question numbers 26-31 are short answer (SA) type questions, carrying 03 marks each.
6. In Section D, Question numbers 32-35 are long answer (LA) type questions, carrying 05 marks each.
7. In Section E, Question numbers 36-38 are case study-based questions carrying 4 marks each with sub parts of the values of 1, 1 and 2 marks each respectively.
8. There is no overall choice. However, an internal choice in 2 questions of Section B, 2 questions of Section C and 2 questions of Section D has been provided. An internal choice has been provided in all the 2 marks questions of Section E.
9. Draw neat and clean figures wherever required. Take $\pi = 227$ wherever required if not stated.
10. Use of calculators is not allowed.

SECTION – A		
(Multiple Choice Questions)		
Each MCQ of 1mark, has four options with only one correct option, choose the correct option		
Q.No.	Question	Marks
Q1.	Let E be an event such that $P(\text{not}E) = \frac{1}{5}$, then $P(E)$ is equal to: A) $\frac{1}{5}$ B) 1 C) 0 D) $\frac{4}{5}$	1
Q2.	If $p(x) = x^2 + 5x + 6$, then $p(-2)$ is: A) 20 B) 0 C) -8 D) 8	1
Q3.	The mode of the numbers 2,3,3,4,5,4,4,5,3,4,2,6,7 is: A) 2 B) 3 C) 4 D) 5	1
Q4.	How many tangents can be drawn to a circle from a point on it ? A) One B) Two C) Infinite D) Zero	1
Q5.	A quadratic equation whose one root is 2 and the sum of whose roots is zero, is : A) $x^2 + 4 = 0$ B) $x^2 - 2 = 0$ C) $4x^2 - 1 = 0$ D) $x^2 - 4 = 0$	1
Q6.	Which one of the following is not a quadratic equation	1

	A) $(x + 2)^2 = 2(x + 3)$ C) $(x + 2)(x - 1) = x^2 - 2x - 3$	B). $x^2 + 3x = (-1)(1 - 3x)^2$ D) $x^3 - x^2 + 2x + 1 = (x + 1)^3$	
Q7.	A quadratic polynomial whose sum and product of zeroes are 2 and -1 respectively is :		1
	A) $x^2 + 2x + 1$	B) $x^2 - 2x - 1$	C) $x^2 + 2x - 1$
	D) $x^2 - 2x + 1$		
Q8.	(HCF × LCM) for the numbers 30 and 70 is:		1
	A) 2100	B) 21	C) 210
	D) 70		
Q9.	The length of the arc of a circle of the radius 14 cm which subtends an angle of 60° at the centre of the circle is		1
	A) $44/3$ cm	B) $88/3$ cm	C) $308/3$ cm
	D) $616/3$ cm		
Q10.	If the radius of a semi-circular protractor is 7 cm, then its perimeter is:		1
	A) 11 cm	B) 14 cm	C) 22 cm
	D) 36 cm		
Q11.	The angle of elevation of the top of a 15 m high tower at a point $15\sqrt{3}$ m away from the base of the tower is:		1
	A) 30°	B) 45°	C) 60°
	D) 90°		
Q12.	If in ΔABC , $\angle C = 90^\circ$, then $\sin(A + B) =$		1
	A) 0	B) $1/2$	C) $1/\sqrt{2}$
	D) 1		
Q13.	A bag has 3 red balls and 5 green balls. If we take a ball from the bag, then what is the probability of getting a red ball?		1
	A) $3/5$	B) $5/8$	C) $3/8$
	D) $8/3$		
Q14.	If two positive integers A and B can be expressed as $A = xy^3$ and $B = x^4y^2z$; x, y being prime numbers, the LCM(A, B) is		1
	A) xy^2	B) x^4y^2z	C) x^4y^3
	D) x^4y^3z		
Q15.	The lines represented by the given equations $4x + 2y = 16$ and $3x - y = 8$ are :		1
	A) Parallel	B) Intersecting	C) Coincident
	D) Perpendicular		
Q16.	If $\Delta ABC \sim \Delta DEF$ and $\angle A = 47^\circ$, $\angle E = 83^\circ$, then $\angle C$ is equal:		1
	A) 47°	B) 50°	C) 83°
	D) 130°		
Q17.	PQ and PR are the two tangents to a circle of centre O at the points Q and R on the circle if $\angle QPR = 40^\circ$, then $\angle QRO$ is		1
	A) 10°	B) 20°	C) 40°
	D) 140°		
Q18.	If a pair of linear equations is consistent, then the lines will be		1
	A) always coincident	B) parallel	
	C) always intersecting	D) intersecting or coincident	
Each of the following questions contains two statements i.e., ASSERTION and REASON, and has following four choices.			
A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).			
B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).			
C) Assertion (A) is true but reason (R) is false.			
D) Assertion (A) is false but reason (R) is true.			
Only one of which is the correct answer.			
	ASSERTION (A): If one root of the quadratic equation $4x^2 - 10x + (k - 4) = 0$ is		1

Q19.	reciprocal of the other, then value of k is 8. REASON (R): Roots of the quadratic equation $x^2 - x + 1 = 0$ are real.	
Q20.	ASSERTION (A): A tangent to a circle is perpendicular to the radius through the point of contact. REASON (R): The lengths of tangents drawn from an external point to a circle are equal.	1

SECTION – B (Very Short Answers)		
This section comprises of VSA of 2 marks each		
Q. No.	Question	Marks
Q21.	(A) Find the discriminant of the quadratic equation $3x^2 - 2x + 1/3 = 0$ and hence find the nature of its roots. OR (B) Find the roots of the quadratic equation $x^2 + x - 2 = 0$.	2
Q22.	In the given figure, if $LM \parallel CB$ and $LN \parallel CD$, prove that : $AM/AB = AN/AD$	2
		
Q23.	If $\cos(A + B) = 0$ and $\sin(A - B) = \sqrt{3}/2$, then find the value of A and B where A and B are acute angles.	2
Q24.	A) Find the coordinates of the point which divides the join of A(-1,7) and B(4,-3) in the ratio 2:3. OR B) Show that the points (-2, 3), (8, 3) and (6, 7) are the vertices of a right-angled triangle.	2
Q25.	PA and PB are tangents drawn to the circle with centre O as shown in the figure. Prove that $\angle APB = 2 \angle OAB$.	2
		

SECTION – C
(Short Answers)

This section comprises of SA of 3 marks each

Q. No.	Question	Marks
Q26.	Find the area of the sector of a circle of radius 7cm and of central angle 90°. Also, find the area of corresponding major sector.	3
Q27.	If α, β are zeroes of the quadratic polynomial $x^2 - 5x + 6$, form another quadratic polynomial whose zeroes are $1/\alpha, 1/\beta$.	3
Q28.	A die is rolled once. Find the probability of getting: (i) An even prime number. (ii) A number greater than 4. (iii) An odd number.	3
Q29.	Prove that : $\frac{1+\tan^2 A}{1+\cot^2 A} = \left(\frac{1-\tan A}{1-\cot A}\right)^2 = \tan^2 A$	3
Q30.	(A) Two concentric circles with centre O are of radii 3 cm and 5 cm. Find the length of chord AB of the larger circle which touches the smaller circle at P. OR (B) Prove that the lengths of tangents drawn from an external point to a circle are equal.	3
Q31.	(A) If we add 1 to the numerator and subtract 1 from the denominator, a fraction reduces to 1. It becomes 1/2 if we only add 1 to the denominator. What is the fraction? OR (B) For which value of 'k' will the following pair of line are equations have no solution ? $3x + y = 1$ $(2k-1)x + (k-1)y = 2k+1$	

SECTION – D
(Long Answers)

This section comprises of LA type questions of 5 marks each

Q. No.	Question	Marks																
Q32.	The distribution below gives the weights of 30 students of a class. Find the median weight of the students : <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="padding: 2px;">Weight In kg</td> <td style="padding: 2px;">40-45</td> <td style="padding: 2px;">45-50</td> <td style="padding: 2px;">50-55</td> <td style="padding: 2px;">55-60</td> <td style="padding: 2px;">60-65</td> <td style="padding: 2px;">65-70</td> <td style="padding: 2px;">70-75</td> </tr> <tr> <td style="padding: 2px;">Number of Students</td> <td style="padding: 2px;">2</td> <td style="padding: 2px;">3</td> <td style="padding: 2px;">8</td> <td style="padding: 2px;">6</td> <td style="padding: 2px;">6</td> <td style="padding: 2px;">3</td> <td style="padding: 2px;">2</td> </tr> </table>	Weight In kg	40-45	45-50	50-55	55-60	60-65	65-70	70-75	Number of Students	2	3	8	6	6	3	2	5
Weight In kg	40-45	45-50	50-55	55-60	60-65	65-70	70-75											
Number of Students	2	3	8	6	6	3	2											
Q33.	Find the sum of first 51 terms of an A.P. whose second and third terms are 14 and 18, respectively.	5																

	OR	
	The first term of an A.P. is 5, the last term is 45 and the sum is 400. Find the number of terms and the common difference.	
Q34.	A tent is in the shape of a cylinder surmounted by a conical top. If the height and diameter of the cylindrical part are 2.1 m and 4 m respectively, and the slant height of the top is 2.8 m, find the area of the canvas used for making the tent. Also, find the cost of the canvas of the tent at the rate of Rs. 500 per m ² . (Note that the base of the tent will not be covered with canvas.)	5
Q35.	From the top of a 7 m high building, the angle of elevation of the top of a cable tower is 60° and the angle of depression of its foot is 45°. Determine the height of the tower. OR From the top of a building 50 m high, the angles of depression of the top and bottom of a tower are observed to be 30° and 60°. Find the height of the tower and distance between the building and the tower. (Take $\sqrt{3} = 1.73$)	5

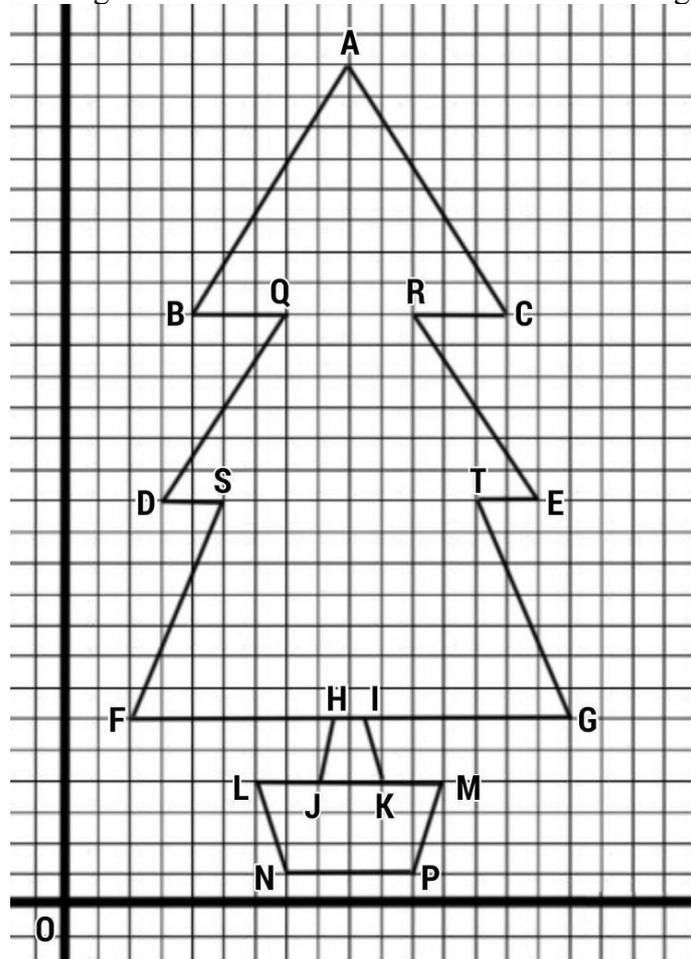
SECTION - E		
(Case-study Based Questions)		
This section comprises of 3 case-study based questions of 4 marks each with three sub-parts.		
Q. No.	Question	Marks
Q36.	<p>Meenal was trying to find the height of tower near his house. She is using the properties of similar triangles. The height of Meenal's house is 20 m. When Meenal's house casts a shadow of 10m long on the ground, at the same time, tower casts a shadow of 50 m long and Arun's house casts a shadow of 20 m long on the ground as shown below.</p> <div style="text-align: center;"> <p>The diagram shows three similar right-angled triangles. The first triangle is for Arun's house, with a vertical side of 20 m and a horizontal shadow of 20 m. The second triangle is for a tower, with a vertical side labeled 'Tower' and a horizontal shadow of 50 m. The third triangle is for Meenal's house, with a vertical side of 20 m and a horizontal shadow of 10 m.</p> </div> <p>Based on the above information, answer the following questions.</p> <p>(i) What is the height of tower?</p> <p>(ii) What will be the length of shadow of tower when Meenal's house casts a shadow of 15 m?</p> <p>(iii) (a) If tower casts a shadow of 40 m, then find the length of shadow of Arun's house.</p>	(1+1+2)

OR

(b) If tower casts a shadow of 40 m, then what will be the length of shadow of Meenal's house?

Q37.

A design of Christmas tree is shown in the following graph:



Now answer the following questions:

- (i) What are the coordinates of the point G .
- (ii) Find the mid-point of AB.
- (iii) (a) Find the length of FS.

OR

- (b) Find the distance between N and M .

(1+1+2)

Q38.

Khushi wants to organize her birthday party. Being health conscious, she decided to serve only fruits in her birthday party. She bought 36 apples and 60 bananas and decided to distribute fruits equally among all.

(1+1+2)



Based on the above information, answer the following questions :

- (i) How many guests Khushi can invite at the most ?
- (ii) How many apples and bananas will each guest get ?
- (iii) (a) If Khushi decides to add 42 mangoes, how many guests Khushi can invite at the most ?

OR

If Khushi decides to add 42 mangoes, how many apples, mangoes and bananas will each guest get ?

Pre-board Examination(2025-26)

पूर्व- बोर्ड परीक्षा (2025-26)

Class: X

Subject and Subject code: Social Science(087)

कक्षा: X

विषय और विषय कोड: सामाजिक विज्ञान (087)

Time:03hrs

समय: 03 घंटे

Max.marks:80

अधिकतम अंक: 80

General Instructions:

सामान्य निर्देश:

1. There are 38 questions in the Question paper. All questions are compulsory.
1. प्रश्न पत्र में 38 प्रश्न हैं। सभी प्रश्न अनिवार्य हैं।
2. The question paper has Four Sections - A-History, B-Geography C- Political Science, and D-Economics.
2. प्रश्नपत्र में चार खंड हैं - A: इतिहास, B: भूगोल, C: राजनीति विज्ञान और D: अर्थशास्त्र।
3. Each Section is of 20 Marks and has MCQs, VSA, SA, LAs and CBQ.
3. प्रत्येक खंड 20 अंकों का है और इसमें MCQs, VSA, SA, LA और CBQ प्रश्न शामिल हैं।
4. Very Short Answer Type Questions (VSA), carry 2 marks each. Answers to each question should not exceed 40 words.
4. अति लघु उत्तरीय प्रश्न (VSA) 2 अंकों के होंगे। प्रत्येक उत्तर 40 शब्दों से अधिक नहीं होना चाहिए।
5. Short Answer Type Questions (SA), carry 3 marks each. Answers to each question should not exceed 60 words.
5. लघु उत्तरीय प्रश्न (SA) 3 अंकों के होंगे। प्रत्येक उत्तर 60 शब्दों से अधिक नहीं होना चाहिए।
6. Long answer type questions (LA), carry 5 marks each. Answers to each question should not exceed 120 words.
6. दीर्घ उत्तरीय प्रश्न (LA) 5 अंकों के होंगे। प्रत्येक उत्तर 120 शब्दों से अधिक नहीं होना चाहिए।
7. There are case based questions (CBQ) with three sub questions and are of 4 marks each. Answers to each question should not exceed 100 words.
7. केस आधारित प्रश्न (CBQ) 4 अंकों के होंगे जिनमें तीन उप प्रश्न होंगे। प्रत्येक उत्तर 100 शब्दों से अधिक नहीं होना चाहिए।
8. The map-based questions, carry 5 marks with two parts- Q9. In Section A-History (2 marks) and Q19. In Section B-Geography (3 marks)
8. मानचित्र आधारित प्रश्न 5 अंकों के होंगे जिनमें दो भाग होंगे - प्रश्न 9 (इतिहास खंड - 2 अंक) और प्रश्न 19 (भूगोल खंड - 3 अंक)।
9. There is no overall choice in the question paper. However, an internal choice has been provided in few questions. Only one of the choices in such questions must be attempted.
9. प्रश्न पत्र में कोई समग्र विकल्प नहीं है। हालाँकि, कुछ प्रश्नों में आंतरिक विकल्प दिया गया है। केवल एक विकल्प का प्रयास करना होगा।
10. In addition to this, NOTE that a separate question has been provided for Visually Impaired candidates in lieu of questions having visual inputs, map etc. Such questions are to be attempted by Visually Impaired candidates only.

10. दृष्टि बाधित विद्यार्थियों के लिए विशेष प्रश्न प्रदान किए गए हैं जो दृश्य इनपुट और मानचित्र आदि के स्थान पर दिए गए हैं।

	<p style="text-align: center;">SECTION A HISTORY(20MARKS) खंड - A :</p> <p>इतिहास (20 अंक)</p>	
--	--	--

1	<p>Study the picture and answer the question that follows: चित्र का अध्ययन करें और निम्नलिखित प्रश्न का उत्तर दें: Identify the two leaders with Mahatma Gandhi. (a) Maulana Azad and Bal Gangadhar Tilak (b) Nehru and Jinnah (c) Shaikat Ali and Gopal Krishna Gokhale (d) Jawaharlal Nehru and Maulana Azad महात्मा गांधी के साथ दो नेताओं की पहचान करें। (a) मौलाना आज़ाद और बाल गंगाधर तिलक (b) नेहरू और जिन्ना (c) शौकत अली और गोपाल कृष्ण गोखले (d) जवाहरलाल नेहरू और मौलाना आज़ाद</p> 	1
2	<p>Under the presidency of Jawaharlal Nehru, the Lahore Congress formalised the demand of “Purna Swaraj” of full independence for India in _____ (a) December 1929 (b) January 1929 (c) December 1930 (d) December 1928 जवाहरलाल नेहरू की अध्यक्षता में लाहौर कांग्रेस ने भारत के लिए पूर्ण स्वतंत्रता की “पूर्णस्वराज” की मांग को औपचारिक रूप कब दिया था? (a) दिसंबर 1929 (b) जनवरी 1929 (c) दिसंबर 1930 (d) दिसंबर 1928</p>	1
3	<p>Arrange the following in the correct sequence. (i) Unification of Germany (ii) Unification of Italy (iii) Greek struggle for independence began (iv) Fall of Napoleon (a) (iv)-(iii)-(ii)-(i) (b) (ii)-(iv)-(iii)-(i) (c) (iii)-(iv)-(ii)-(i) (d) (i)-(iii)-(ii)-(iv) निम्नलिखित को सही क्रम में व्यवस्थित करें। (i) जर्मनी का एकीकरण (ii) इटली का एकीकरण (iii) स्वतंत्रता के लिए ग्रीक संघर्ष शुरू हुआ (iv) नेपोलियन का पतन (a) (iv)-(iii)-(ii)-(i) (b) (ii)-(iv)-(iii)-(i) (c) (iii)-(iv)-(ii)-(i) (d) (i)-(iii)-(ii)-(iv)</p>	1
4	<p>The following questions consist of two statements- Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below: (a) Both A and R are true and R is the correct explanation of A. (b) Both A and R are true but R is not the correct explanation of A (c) A is correct but R is wrong. (d) A is wrong but R is correct. निम्नलिखित प्रश्नों में दो कथन हैं - अभिकथन (A) और कारण (R)।</p>	1

	<p>नीचे दिए गए उचित विकल्प का चयन करके इन प्रश्नों के उत्तर दीजिए:</p> <p>(a) A और R दोनों सत्य हैं और R, A का सही स्पष्टीकरण है।</p> <p>(b) A और R दोनों सत्य हैं लेकिन R, A का सही स्पष्टीकरण नहीं है।</p> <p>(c) A सही है लेकिन R गलत है।</p> <p>(d) A गलत है लेकिन R सही है।</p> <p>Assertion (A): The Printing press came to Goa with French missionaries in the mid-16th century. Reason (R): The Jesuit Priests learnt Konkani and printed several tracts.</p> <p>अभिकथन (A) : 16 वीं शताब्दी के मध्य में फ्रांसीसी मिशनरियों के साथ प्रिंटिंग प्रेस गोवा आई थी। कारण (R) : जे सुइट पादरियों ने कोंकणी सीखी और कई ट्रैक्ट छापे।</p>	
5A	<p>Explain how the silk routes are a good example of Pre-modern trade between different countries of the world?</p> <p>रेशम मार्ग किस प्रकार विश्व के विभिन्न देशों के बीच पूर्व-आधुनिक व्यापार का एक अच्छा उदाहरण हैं? व्याख्या करें।</p>	2
	OR अथवा	
5B	<p>Give two examples of different types of global exchanges which took place before the seventeenth century, choosing one example from Asia and one from the Americas</p> <p>सत्रहवीं शताब्दी से पूर्व हुए विभिन्न प्रकार के वैश्विक आदान-प्रदान के दो उदाहरण दीजिए, जिनमें से एक उदाहरण एशिया से और एक उदाहरण अमेरिका से दिया गया।</p>	
6A	<p>Explain how print culture assisted the growth of nationalism in India.</p> <p>बताएं कि कैसे मुद्रण संस्कृति ने भारत में राष्ट्रवाद के विकास में सहायता की।</p>	3
	OR अथवा	
6B	<p>Enumerate some drawbacks of manuscripts.</p> <p>पांडुलिपियों की कुछ कमियां गिनाइए।</p>	
7A	<p>How did ideas of national unity in early nineteenth century Europe ally to the ideology of liberalism? Explain.</p> <p>उन्नीसवीं सदी की शुरुआत में यूरोप में राष्ट्रीय एकता के विचार उदारवाद की विचारधारा से कैसे जुड़े? व्याख्या करें।</p>	5
	OR अथवा	
7B	<p>"In the administrative field Napoleon had incorporated revolutionary principles." Explain the statement.</p> <p>"नेपोलियन ने प्रशासनिक क्षेत्र में क्रांतिकारी सिद्धांतों का समावेश किया था।" कथन की व्याख्या कीजिए।</p>	
8	<p style="text-align: center;">CASE BASED QUESTION</p> <p>Read the given text and answer the following questions:(1+1+2)</p> <p style="text-align: center;">Nationalism in India</p> <p>Modern nationalism in Europe come to be associated with the formation of nation-states. It also meant a change in people's understanding of who they were and what defined their identity and sense of belonging. New symbols and icons, new songs and ideas forged new links and redefined the boundaries of communities. In most countries the making of this new national identity was a long process. How did this consciousness emerge in India?</p>	4

In India and as in many other colonies, the growth of modern nationalism is intimately connected to the anti-colonial movement. People began discovering their unity in the process of their struggle with colonialism. The sense of being oppressed under colonialism provided a shared bond that tied many different groups together. But each class and group felt the effects of colonialism differently, their experiences were varied and their notions of freedom were not always the same. The Congress under Mahatma Gandhi tried to forge these groups together within one movement. But the unity did not emerge without conflict.

Q. 1. What was people's understanding of nation?

Q. 2. How was the growth of modern nationalism intimately connected to the anti-colonial movement?

Q. 3. How did people in India develop a sense of collective belonging? Explain.

केस आधारित प्रश्न:

भारत में राष्ट्रवाद

यूरोप में आधुनिक राष्ट्रवाद राष्ट्र-राज्यों के निर्माण से जुड़ा हुआ है। इसका मतलब यह भी था कि लोगों की समझ में बदलाव आया कि वे कौन थे और उनकी पहचान और अपनेपन की भावना क्या परिभाषित करती है। नए प्रतीकों और प्रतीकों, नए गीतों और विचारों ने नए संबंध बनाए और समुदायों की सीमाओं को फिर से परिभाषित किया। अधिकांश देशों में इस नई राष्ट्रीय पहचान का निर्माण एक लंबी प्रक्रिया थी। भारत में यह चेतना कैसे उत्पन्न हुई? भारत में और कई अन्य उपनिवेशों की तरह, आधुनिक राष्ट्रवाद का विकास उपनिवेशवाद विरोधी आंदोलन से गहराई से जुड़ा हुआ है। लोगों ने उपनिवेशवाद के साथ अपने संघर्ष की प्रक्रिया में अपनी एकता की खोज शुरू कर दी। उपनिवेशवाद के तहत उत्पीड़ित होने की भावना ने एक साझा बंधन प्रदान किया जिसने कई अलग-अलग समूहों को एक साथ बांध दिया। लेकिन प्रत्येक वर्ग और समूह ने उपनिवेशवाद के प्रभावों को अलग-अलग तरह से महसूस किया, उनके अनुभव अलग-अलग थे और स्वतंत्रता के बारे में उनकी धारणाएँ हमेशा एक जैसी नहीं थीं। महात्मा गांधी के नेतृत्व में कांग्रेस ने इन समूहों को एक आंदोलन के तहत एकजुट करने की कोशिश की। लेकिन एकता संघर्ष के बिना सामने नहीं आई।

प्रश्न 1. राष्ट्र के बारे में लोगों की समझ क्या थी?

प्रश्न 2. आधुनिक राष्ट्रवाद का विकास उपनिवेशवाद विरोधी आंदोलन से किस प्रकार घनिष्ठ रूप से जुड़ा था?

प्रश्न 3. भारत में लोगों में सामूहिक अपनेपन की भावना कैसे विकसित हुई? व्याख्या करना।

MAP SKILL BASED QUESTION (2MARKS)

मानचित्र आधारित प्रश्न (2 अंक):

9 (a) Two places i and ii are marked on the outline political map of India. Identify these places with the help of following information and write their correct names on the lines marked near them.

(i) The place where the Indian National Congress was held in 1927.

(ii) The place associated with the Jallianwala Bagh Incident.

(अ) भारत के रूपरेखा राजनीतिक मानचित्र पर दो स्थान I और II अंकित हैं।

निम्नलिखित जानकारी की सहायता से इन स्थानों को पहचानें और उनके पास अंकित रेखाओं पर उनके सही नाम लिखें।

(i) वह स्थान जहाँ 1927 में भारतीय राष्ट्रीय कांग्रेस का आयोजन हुआ था।

(ii) जलियांवाला बाग कांड से जुड़ा स्थान।

Note: The following questions is for **Visually Impaired Candidates** only in lieu of Q.No.9

(i) Name the place where the Indian National Congress was held in 1927.

(ii) Name the place associated with the Jallianwala Bagh Incident.

2

	<p>नोट: निम्नलिखित प्रश्न केवल दृष्टिबाधित विद्यार्थियों के लिए प्रश्न संख्या 9 के स्थान पर है। (i) वह स्थान जहाँ 1927 में भारतीय राष्ट्रीय कांग्रेस का आयोजन हुआ था। (ii) जलियांवाला बाग कांड से जुड़ा स्थान।</p>									
	<p>SECTION B GEOGRAPHY (20 MARKS) खंड - B : भूगोल (20 अंक)</p>									
10	<p>When was the first international Earth summit held in? (a) 1991 (b) 1990 (c) 1992 (d) 1993</p> <p>पहला अंतर्राष्ट्रीय पृथ्वी शिखर सम्मेलन कब आयोजित किया गया था? (a) 1991 (b) 1990 (c) 1992 (d) 1993</p>	1								
11	<p>Which of the following conservation strategy do not directly involve community participation? (a) Joint forest management (b) Chipko movement (c) Beej bachao andolan (d) Demarcation of wildlife sanctuaries</p> <p>निम्नलिखित में से किस संरक्षण रणनीति में सीधे तौर पर सामुदायिक भागीदारी शामिल नहीं है? (a) संयुक्त वन प्रबंधन (b) चिपको आंदोलन (c) बीज बचाओ आंदोलन (d) वन्यजीव अभयारण्यों का सीमांकन</p>	1								
12	<p>Choose the correctly matched pair about the main crop growing states of India from the following options: (a) Cotton – Meghalaya (b) Rubber – Kerala (c) Wheat – Uttar Pradesh (d) Both (b) and (c)</p> <p>निम्नलिखित विकल्पों में से भारत के मुख्य फसल उत्पादक राज्यों के बारे में सही मिलान वाली जोड़ी चुनें: (a) कपास - मेघालय (b) रबर - केरला (c) गेहूँ - उत्तरप्रदेश (d) (b) और (c) दोनों</p>	1								
13	<p>Interpret the following pie diagram and choose the correct option for the following question? What is the significance of 43 percent land under plains?</p> <p>(A) It provides facilities for agriculture and industry. (B) It provides facilities for tourism. (C) It ensures perennial flow of some river. (D) It possesses rich reserve of minerals, fossil fuels and forests.</p> <div style="text-align: right;"> <table border="1" style="margin-left: auto; margin-right: 0;"> <thead> <tr> <th>Land Type</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Plains</td> <td>43%</td> </tr> <tr> <td>Mountains</td> <td>30%</td> </tr> <tr> <td>Plateaus</td> <td>27%</td> </tr> </tbody> </table> </div> <p>निम्नलिखित पाई आरेख की व्याख्या कीजिये और निम्नलिखित प्रश्न के लिए सही विकल्प चुनिए? मैदानी इलाकों के तहत 43 प्रतिशत भूमि का क्या महत्व है? A. यह कृषि और उद्योग के लिए सुविधाएँ प्रदान करता है। B. यह पर्यटन के लिए सुविधाएँ प्रदान करता है।</p>	Land Type	Percentage	Plains	43%	Mountains	30%	Plateaus	27%	1
Land Type	Percentage									
Plains	43%									
Mountains	30%									
Plateaus	27%									

	<p>C. यह किसी नदी का बारहमासी प्रवाह सुनिश्चित करता है। D. इसमें खनिजों, जीवाश्म ईंधनों और वनों का समृद्ध भंडार है</p>	
14	<p>Two statements are given below. They are Assertion (A) and Reason (R). Read both the statements and choose the correct option. Assertion (A): The famous 'Chipko Movement' in the Himalayas successfully resisted deforestation in several areas. Reason (R): Through this, community afforestation campaign with indigenous species was made enormously successful. Options: (A) Both (A) and (R) are true, but (R) is not the correct explanation of (A). (B) Both (A) and (R) are true and (R) is the correct explanation of (A). (C) (A) is true, but (R) is false. (D) (A) is false, but (R) is true.</p> <p>नीचे दो कथन दिए गए हैं। वे अभिकथन (A) और कारण (R) हैं। दोनों कथनों को पढ़िए और सही विकल्प का चयन कीजिए। कथन (A): हिमालय में प्रसिद्ध 'चिपको आंदोलन' ने कई क्षेत्रों में वनों की कटाई का सफलतापूर्वक विरोध किया। कारण (R): इसके माध्यम से, स्वदेशी प्रजातियों के साथ सामुदायिक वनीकरण अभियान को काफी सफल ब विकल्प: (A) दोनों (A) और (R) सत्य हैं, लेकिन (R) (A) का सही स्पष्टीकरण नहीं है। (B) दोनों (A) और (R) सत्य हैं और (R) (A) का सही स्पष्टीकरण है। (C) (A) सत्य है, लेकिन (R) गलत है। (D) (A) गलत है, लेकिन (R) सत्य है।</p>	1
15	<p>Conservation of forest is a key to the survival of human mankind. Some of the practices undertaken in India in this direction is Joint Forest Management. Identify the correct information related to Joint Forest Management.</p> <ol style="list-style-type: none"> 1. It involves local communities in the management and restoration of degraded forests. 2. The programme has been in formal existence since 1980. 3. Jharkhand passed the first resolution for Joint Forest Management. 4. The members of local village communities are entitled to intermediary benefits like non timber forest producers. <p>Options: (A) 1 and 2 only (B) 2 and 3 only (C) 1 and 4 only (D) 3 and 4 only</p> <p>वन का संरक्षण मानव जाति के अस्तित्व की कुंजी है। इस दिशा में भारत में की गई कुछ पद्धतियाँ संयुक्त वन प्रबंधन हैं। संयुक्त वन प्रबंधन से संबंधित सही जानकारी की पहचान करें।</p> <ol style="list-style-type: none"> 1. यह स्थानीय समुदायों को निम्नीकृत वनों के प्रबंधन और बहाली में शामिल करता है। 2. यह कार्यक्रम 1980 से औपचारिक अस्तित्व में है। 	1

	<p>3. झारखंड ने संयुक्त वन प्रबंधन के लिए पहला प्रस्ताव पारित किया।</p> <p>4. स्थानीय ग्राम समुदायों के सदस्य गैर लकड़ी वन उत्पादकों की तरह मध्यस्थ लाभ के हकदार हैं।</p> <p>विकल्प:</p> <p>(A) केवल 1 और 2</p> <p>(B) केवल 2 और 3</p> <p>(C) केवल 1 और 4</p> <p>(D) केवल 3 और 4</p>	
16	<p>Name one important beverage crop and specify the geographical conditions required for its growth.</p> <p>एक महत्वपूर्ण पेय फसल का नाम बताइए और इसकी वृद्धि के लिए आवश्यक भौगोलिक परिस्थितियों को स्पष्ट कीजिए।</p>	2
17A	<p>Describe the importance of manufacturing industries as a backbone of economic development of the country.</p> <p>देश के आर्थिक विकास की रीढ़ के रूप में विनिर्माण उद्योगों के महत्व को स्पष्ट कीजिए।</p>	5
	OR अथवा	
17B	<p>Discuss the steps to be taken to minimise environmental degradation by industries.</p> <p>उद्योगों द्वारा पर्यावरण क्षरण को कम करने के लिए उठाए जाने वाले कदमों की विवेचना कीजिए।</p>	
18	<p style="text-align: center;">CASE BASED QUESTION</p> <p>Read the given text and answer the following questions: (1+1+2)</p> <p style="text-align: center;">RAINWATER HARVESTING</p> <p>Many thought that given the disadvantages and rising resistance against the multi-purpose projects, water harvesting system was a viable alternative, both socio-economically and environmentally. In ancient India, along with the sophisticated hydraulic structures, there existed an extraordinary tradition of water harvesting system. People had in-depth knowledge of rainfall regimes and soil types and developed wide ranging techniques to harvest rainwater, groundwater, river water and flood water in keeping with the local ecological conditions and their water needs. In hill and mountainous regions, people built diversion channels like the 'guls' or 'kuls' of the Western Himalayas for agriculture. 'Rooftop rainwater harvesting' was commonly practised to store drinking water, particularly in Rajasthan. In the flood plains of Bengal, people developed inundation channels to irrigate their fields. In arid and semi-arid regions, agricultural fields were converted into rain fed storage structures that allowed the water to stand and moisten the soil like the 'Khadins' in Jaisalmer and 'Johads' in other parts of Rajasthan.</p> <p>Q. 1. Why is water harvesting system a viable alternative?</p> <p>Q. 2. Describe the process of 'rooftop rainwater harvesting'?</p> <p>Q. 3. Mention any two methods adopted by ancient India for water conservation.</p> <p style="text-align: center;">जलसंरक्षण</p> <p>कई लोगों ने सोचा कि बहु उद्देश्यीय परियोजनाओं के नुकसान और उनके खिलाफ बढ़ते प्रतिरोध को देखते हुए, जलसंचयन प्रणाली सामाजिक-आर्थिक और पर्यावरणीय दोनों ही दृष्टि से एक व्यवहार्य विकल्प है। प्राचीन भारत में, परिष्कृत हाइड्रोलिक संरचनाओं के साथ-साथ, जलसंचयन प्रणाली की एक असाधारण परंपरा मौजूद थी। लोगों को वर्षा व्यवस्था और मिट्टी के प्रकारों का महान ज्ञान था और उन्होंने स्थानीय पारिस्थितिक स्थितियों और उनकी जल आवश्यकताओं को ध्यान में रखते हुए वर्षा जल, भूजल, नदी जल और बाढ़ जलसंचयन के</p>	4

	<p>लिए व्यापक तकनीकें विकसित कीं। पहाड़ी और पर्वतीय क्षेत्रों में, लोगों ने कृषि के लिए पश्चिमी हिमालय के 'गुल' या 'कुल' जैसे डायवर्जन चैनल बनाए। विशेषकर राजस्थान में पीने के पानी को संग्रहित करने के लिए आमतौर पर 'छत पर वर्षा जलसंचयन' का अभ्यास किया जाता था। बंगाल के बाढ़ के मैदानों में, लोगों ने अपने खेतों की सिंचाई के लिए जल प्लावन चैनल विकसित किए। शुष्क और अर्ध-शुष्क क्षेत्रों में, कृषि क्षेत्रों को वर्षा आधारित भंडारण संरचनाओं में परिवर्तित कर दिया गया, जिससे पानी जमा हो सके और मिट्टी को नम किया जा सके, जैसे जैसलमेर में 'खडीन' और राजस्थान के अन्य हिस्सों में 'जोहड़'।</p> <p>प्रश्न 1. जलसंचयन प्रणाली एक व्यवहार्य विकल्प क्यों है? प्रश्न 2. 'छत पर वर्षा जलसंचयन' की प्रक्रिया का वर्णन करें? प्रश्न 3. जलसंरक्षण के लिए प्राचीन भारत द्वारा अपनाई गई किन्हीं दो विधियों का उल्लेख करें।</p>	
	<p>MAP SKILL BASED QUESTIONS (3 MARKS) मानचित्र कौशल आधारित प्रश्न (3 अंक)</p>	
19	<p>On the same outline map of India locate and label the following with suitable symbols:</p> <p>(i) Salal Dam. (ii) Bhilai –Iron and steel Plant. (iii)Neta ji subhashchandrabose International airport</p> <p>भारत के दिए गए रूपरेखा मानचित्र पर निम्नलिखित को दर्शाएँ।</p> <p>(i) सलाल बांध। (ii) भिलाई-लोहा और इस्पात संयंत्र। (iii)नेताजी सुभाष चंद्रबोस अंतर्राष्ट्रीय हवाईअड्डा</p> <p>Note: The following questions is for Visually Impaired Candidates only in lieu of Q.No.9</p> <p>(i) Name the place where Salal Dam is situated (ii)Name the place where Bhilai – Iron and steel Plant.is situated (iii)Name the place where Neta ji subhashchandrabose International airport</p> <p>नोट:निम्नलिखित प्रश्न केवल दृष्टिबाधित विद्यार्थियों के लिए प्रश्न संख्या 9 के स्थान पर है।</p> <p>i) वह स्थान जहाँ सलाल बांध स्थित है। ii) भिलाई - लोहा और इस्पात संयंत्र। से जुड़ा स्थान। iii)वह स्थान जहाँ नेताजी सुभाष चंद्रबोस अंतर्राष्ट्रीय हवाईअड्डा स्थित है</p>	3
	<p>SECTION C POLITICAL SCIENCE (20 MARKS) खंड C राजनीति विज्ञान (20 अंक)</p>	
20	<p>Under which of the following is power shared in the 'community government' of Belgium?</p> <p>(a) Different social groups (b)Different organs of Government (c) Central and State Government (d) State and Community government</p> <p>बेल्जियम की 'सामुदायिकसरकार' में सत्ता का बंटवारा निम्नलिखित में से किस के द्वारा किया जाता है?</p> <p>(a) विभिन्न सामाजिक समूह (b) सरकार के विभिन्न अंग (c) केंद्र और राज्य सरकार (d) राज्य और सामुदायिक सरकार</p>	1

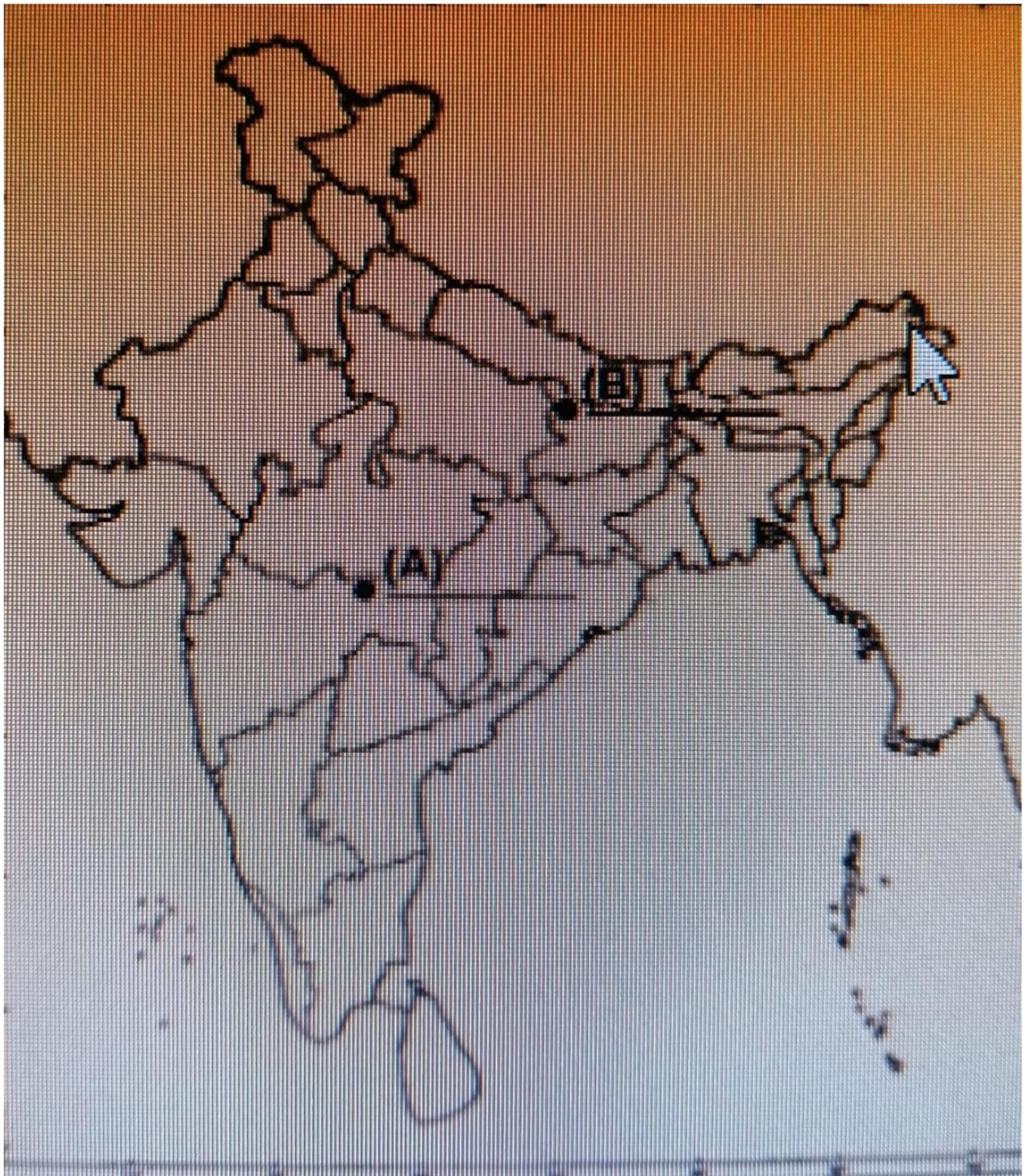
21	Which linguistic group was in majority in the capital city of Belgium brussels? (a) Dutch (b) French (c) German (d) Spanish बेल्जियम की राजधानी ब्रुसेल्स में कौन सा भाषाई समूह बहुसंख्यक था? (a) डच (b) फ्रेंच (c) जर्मन (d) स्पेनिश	1
22	When power is taken away from Central and State government and given to local government, it is called: (a) Centralisation (b) Decentralisation (c) Panchayat Samiti (d) None of these जब केंद्र और राज्य सरकार से शक्ति छीनकर स्थानीय सरकार को दे दी जाती है, तो उसे कहते हैं: (a) केंद्रीकरण (b) विकेंद्रीकरण (c) पंचायत समिति (d) इनमें से कोई नहीं	1
23	Which among the following statements about India's constitution is wrong? It (a) Prohibits discrimination on grounds of religion. (b) Gives official status to one religion. (c) Provides to all individuals freedom to profess any religion. (d) Ensures equalities of citizens within religious communities. भारत के संविधान के बारे में निम्नलिखित में से कौन सा कथन गलत है? यह (a) धर्म के आधार पर भेदभाव को रोकता है। (b) एक धर्म को आधिकारिक दर्जा देता है। (c) सभी व्यक्तियों को किसी भी धर्म को मानने की स्वतंत्रता प्रदान करता है। (d) धार्मिक समुदायों के भीतर नागरिकों की समानता सुनिश्चित करता है।	1
24	Define "coming together federalism"? "कमिंग टुगेदर फेडरलिस्म (संघवाद)" को परिभाषित कीजिये	2
25	Explain the main reason for the alienation of Tamils in Sri Lanka. श्रीलंका में तमिलों के अलगाव का मुख्य कारण बताइये।	2
26	Describe the three-fold distribution of legislative powers between the Union Government and state government. केंद्र सरकार और राज्य सरकार के बीच विधायी शक्तियों के त्रिविध वितरण का वर्णन करें।	3
27A	Explain the role of political parties in a democracy. लोकतंत्र में राजनीतिक दलों की भूमिका स्पष्ट करें।	5
OR अथवा		
27B	"Political parties today face several challenges that impact the democratic functioning." Justify this statement. "राजनीतिक दलों को आज कई चुनौतियों का सामना करना पड़ता है जो लोकतांत्रिक कामकाज को प्रभावित करती हैं।" इस कथन का औचित्य सिद्ध कीजिए।	
28	CASE BASED QUESTION Read the given text and answer the following questions.(1+2+1) Two different sets of reasons can be given in favour of power sharing. Let us call the first set of reasons prudential and the second moral. While prudential reasons stress that power sharing will bring out better outcomes, moral reasons emphasizes the very act of power sharing as valuable. 28.1 Why power sharing is essential for democracy? 1 28.2 Differentiate between Community government in Belgium and Majoritarian government in Srilanka. 2	4

	<p>28.3 What is the moral reason for Power sharing. 1</p> <p style="text-align: center;">केस आधारित प्रश्न</p> <p>दिए गए पाठ को पढ़ें और निम्नलिखित प्रश्नों के उत्तर दें: (1+2+1)</p> <p>"सत्ता के बंटवारे के पक्ष में दो अलग-अलग तरह के कारण दिए जा सकते हैं। चलिए पहले समूह के कारणों को युक्तिपरक और दूसरे को नैतिक कहते हैं। जहाँ युक्तिपरक कारण इस बात पर जोर देते हैं कि सत्ता के बंटवारे से बेहतर परिणाम मिलेंगे, वहीं नैतिक कारण सत्ता के बंटवारे के कार्य को ही मूल्यवान मानते हैं। →</p> <p>28.1 लोकतंत्र के लिए सत्ता का बंटवारा क्यों आवश्यक है? (1)</p> <p>28.2 बेल्जियम में सामुदायिक सरकार और श्रीलंका में बहुसंख्यकवादी सरकार के बीच अंतर स्पष्ट कीजिए। (2)</p> <p>28.3 सत्ता के बंटवारे का नैतिक कारण क्या है? (1)</p>	
	<p>SECTION – D</p> <p>ECONOMICS (20 MARKS)</p> <p>खंड D</p> <p>अर्थशास्त्र (20 अंक)</p>	
29	<p>Employment figures of a country are based on data collected from 5-yearly surveys on employment and unemployment. Which organization conducts this survey?</p> <p>(a) NSSO - National Sample Survey Organization. (b) NREGA 2005- National Rural Employment Guarantee Act,2005 (c) ILO – International Labour Organization (d) Census of India</p> <p>किसी देश के रोजगार के आंकड़े रोजगार और बेरोजगारी पर 5-वर्षीय सर्वेक्षणों से एकत्र आंकड़ों पर आधारित होते हैं। कौन सा संगठन यह सर्वेक्षण करता है?</p> <p>(a) NSSO - राष्ट्रीय नमूना सर्वेक्षण संगठन। (b) नरेगा 2005- राष्ट्रीय ग्रामीण रोजगार गारंटी अधिनियम, 2005 (c) ILO - अंतर्राष्ट्रीय श्रम संगठन (d) भारत की जनगणना।</p>	1
30	<p>Which of the following is an example of Collateral?</p> <p>(a) Livestocks (b) Land (c) Deposits with bank (d) All of these</p> <p>निम्नलिखित में से कौन सा संपार्श्विक का उदाहरण है?</p> <p>(a) पशुधन (b) भूमि (c) बैंकमेंजमा (d) येसभी</p>	1
31	<p>The most common route for investments by MNCs in countries around the world is to:</p> <p>(a) By making close relations with local companies. (b) Buy existing local companies. (c) Form partnerships with local companies. (d) All of these.</p> <p>दुनियाभर के देशों में बहुराष्ट्रीय कंपनियों द्वारा निवेश के लिए सबसे आम तरीका है:</p> <p>(क) स्थानीय कंपनियों के साथ नजदीकी संबंध बना कर। (ख) मौजूदा स्थानीय कंपनियों को खरीदना। (ग) स्थानीय कंपनियों के साथ साझेदारी बनाना। (घ) उपरोक्त सभी। .</p>	1
32	<p>An agreement in which the lender supplies the borrower with money goods or services in return for the promise of further payment refers to:</p> <p>(a) Credit (b) Deposit (c) Account (d) Collateral</p> <p>एक समझौता जिसमें ऋणदाता उधारकर्ता को आगे भुगतान के वादे के बदले में धन, सामानया सेवाएं प्रदान करता है, वह निम्न को संदर्भित करता है:</p>	1

	(a) ऋण	(b) जमा	(c) खाता	(d) संपार्श्विक	
33	<p>Study the given picture. The work done in the picture comes under which one of the following sectors of the economy?</p> <p>(A) Primary (B) Secondary (C) Tertiary (D) Quaternary</p> <p>निम्नलिखित चित्र का अध्ययन करें। चित्र में किया गया कार्य अर्थव्यवस्था के निम्नलिखित क्षेत्रों में से किसके अंतर्गत आता है?</p> <p>(A) प्राथमिक (B) द्वितीयक (C) तृतीयक (D) चतुर्थातुक</p>				1
					
34	<p>Which of the following is an example of Trade Barrier?</p> <p>(a) Tax on imports (b) Custom duty (c) Transit Permits (d) All of these</p> <p>निम्नलिखित में से कौन सा व्यापार अवरोध का उदाहरण है?</p> <p>(a) आयात पर कर (b) सीमा शुल्क (c) पारगमन परमिट (d) उपरोक्त सभी</p>				1
35	<p>Explain the meaning of H.D.I. Explain three components of measuring H.D.I.</p> <p>H.D.I. का अर्थ स्पष्ट करें। H.D.I. मापने के तीन घटकों की व्याख्या करें।</p>				3
36	<p>“There is a need for protection and support for the workers in the unorganised sector.” Evaluate this statement.</p> <p>असंगठित क्षेत्र के श्रमिकों के लिए सुरक्षा और समर्थन की आवश्यकता है।” इस कथन का मूल्यांकन करें।</p>				3
37	<p>Why do you think MGNREGA 2005 is referred to as 'Right to Work'?</p> <p>मनरेगा 2005 को 'काम का अधिकार' क्यों कहा जाता है?</p>				3
38A	<p>What is the basic idea behind the Self-Help Groups (SHGs) for the poor? Explain in your own words.</p> <p>गरीबों के लिए स्वयं सहायता समूहों (SHG) के पीछे मूल विचार क्या है? अपने शब्दों में समझाइए।</p>				5
OR अथवा					
38B	<p>Saroj works in an office. Suman is her house help. State any five points of difference in the working conditions of Saroj and Suman.</p> <p>सरोज एक कार्यालय में काम करती है। सुमन उसकी घरेलू सहायिका है। सरोज और सुमन की काम करने की स्थितियों में कोई पांच अंतर बताइए।</p>				

Map for Question No. 9 (Section A) and Question No. 19 (Section B)

प्रश्न संख्या 9 (खंड ए) और प्रश्न संख्या 19 (खंड बी) के लिए मानचित्र



PRE-BOARD EXAMINATION (2025-26)
CLASS - X
MATHEMATICS (STANDARD) – Code No. 041

Maximum marks:80

Time:3 hours

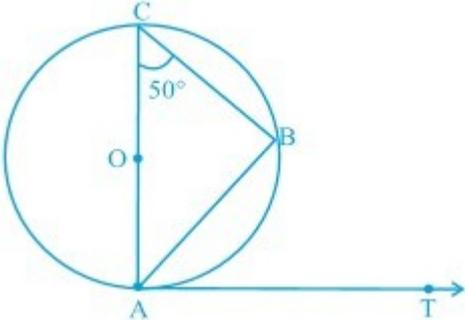
General Instructions: -

Read the following instructions carefully and follow them: -

1. This question paper contains 38 questions. All Questions are compulsory.
2. This Question Paper is divided into 5 Sections A, B, C, D and E.
3. In Section A, Question numbers 1-18 are multiple choice questions (MCQs) and question no.19 and 20 are Assertion- Reason based questions of 1 mark each.
4. In Section B, Question numbers 21-25 are very short answer (VSA) type questions, carrying 02 marks each.
5. In Section C, Question numbers 26-31 are short answer (SA) type questions, carrying 03 marks each.
6. In Section D, Question numbers 32-35 are long answer (LA) type questions, carrying 05 marks each.
7. In Section E, Question numbers 36-38 are case study-based questions carrying 4 marks each with sub parts of the values of 1, 1 and 2 marks each respectively.
8. There is no overall choice. However, an internal choice in 2 questions of Section B, 2 questions of Section C and 2 questions of Section D has been provided. An internal choice has been provided in all the 2 marks questions of Section E.
9. Draw neat and clean figures wherever required. Take $\pi = 227$ wherever required if not stated.
10. Use of calculators is not allowed.

SECTION – A (Multiple Choice Questions)		
Each MCQ of 1mark, has four options with only one correct option, choose the correct option		
Q.No.	Question	Marks
Q1.	If two positive integers a and b are written as $a= 4x^3y^2$ and $b=12xy^3$ where x,y are prime numbers, then HCF(a ,b) is A) xy B) 4xy C) x^3y^3 D) $4xy^2$	1
Q2.	The sum of exponents of prime factors in the prime-factorisation of 196 is A)3 B)4	1

	<p>C) 5</p> <p>D) 6</p>	
Q3.	<p>The quadratic equations $x^2 - 4x + k = 0$ has distinct real roots if</p> <p>A) $k=4$</p> <p>B) $k>4$</p> <p>C) $k= 16$</p> <p>D) $k< 4$</p>	1
Q4.	<p>Value(s) of k for which the quadratic equation $2x^2 - kx + k=0$ has equal roots is</p> <p>A) 0 only</p> <p>B) 4</p> <p>C) 8 only</p> <p>D) 0 and 8</p>	1
Q5.	<p>Distance between the points A(0,6) and B(0,-2) is</p> <p>A) 7</p> <p>B) 5</p> <p>C) 8</p> <p>D) -8</p>	1
Q6.	<p>If the point (x,y) is equidistant from the points A(5,1) and B(-1,5) then</p> <p>A) $2x=3y$</p> <p>B) $3x=2y$</p> <p>C) $x=y$</p> <p>D) $4x=5y$</p>	1
Q7.	<p>D and E are the midpoints of side AB and AC of $\triangle ABC$, respectively and $BC = 6$ cm. If $DE \parallel BC$, then the length of DE (in cm) is</p> <p>(A) 2.5 (B) 3 (C) 5 (D) 6</p>	1
Q8.	<p>A card is selected at random from a well shuffled deck of 52 cards. The probability of its being a face card is</p> <p>A) $3/26$ B) $3/13$ C) $2/13$ D) $1/2$</p>	1

<p>Q9.</p>	<p>If the area of circle is numerically equal to twice its circumference, then the diameter of the circle is</p> <p>A) 4 units</p> <p>B) 6 units</p> <p>C) 8 units</p> <p>D) 12 units</p>	<p>1</p>
<p>Q10.</p>	<p>In the following figure, AB is a chord of the circle and AOC is its diameter such that $\angle ACB = 50^\circ$. If AT is the tangent to the circle at the point A, then $\angle BAT$ is equal to.</p>  <p>A) 65°</p> <p>B) 60°</p> <p>C) 50°</p> <p>D) 40°</p>	<p>1</p>
<p>Q11.</p>	<p>TP and TQ are the two tangents to a circle with center O so that angle $\angle POQ = 130^\circ$. Find $\angle PTQ$.</p> <p>A) 50°</p> <p>B) 70°</p> <p>C) 80°</p> <p>D) none of these</p>	<p>1</p>
<p>Q12.</p>	<p>If the perimeter of a circle is equal to that of a square, then the ratio of their areas is</p> <p>A) 22:7</p> <p>B) 14:11</p>	<p>1</p>

	<p>C) 7:22</p> <p>D) 11:14</p>													
Q13.	<p>$\sin 2A = 2 \sin A$ is true when $A =$</p> <p>A) 0°</p> <p>B) 30°</p> <p>C) 45°</p> <p>D) 60°</p>	1												
Q14.	<p>$(\sec A + \tan A)(1 - \sin A) =$</p> <p>A) $\sec A$</p> <p>B) $\sin A$</p> <p>C) $\cos A$</p> <p>D) $\cot A$</p>	1												
Q15.	<p>The heights (in cm) of 10 students are: 150, 155, 160, 165, 170, 170, 175, 180, 185, 190. What is the median height of the students?</p> <p>A) 165 cm B) 170 cm C) 172.5 cm D) 175 cm</p>	1												
Q16.	<p>If the height of a pole is equal to the length of its shadow, then the angle of elevation of the sun is</p> <p>A) 30° B) 45° C) 60° D) 90°</p>	1												
Q17.	<p>Consider the following frequency distribution.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tbody> <tr> <td>Class</td> <td>0-5</td> <td>5-10</td> <td>10-15</td> <td>15-20</td> <td>20-25</td> </tr> <tr> <td>Frequency</td> <td>10</td> <td>15</td> <td>12</td> <td>20</td> <td>9</td> </tr> </tbody> </table> <p>The lower limit of modal class is</p> <p>A) 15 B) 20 C) 10 D) 5</p>	Class	0-5	5-10	10-15	15-20	20-25	Frequency	10	15	12	20	9	1
Class	0-5	5-10	10-15	15-20	20-25									
Frequency	10	15	12	20	9									
Q18.	<p>A cube of 6cm side is cut into number of cubes each of side 2cm. The number of cubes will be</p>	1												

	<p>A) 9</p> <p>B) 18</p> <p>C) 27</p> <p>D) 36</p>	
--	--	--

Each of the following questions contains two statements i.e., ASSERTION and REASON, and has following four choices.

- A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).
 B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).
 C) Assertion (A) is true but reason (R) is false.
 D) Assertion (A) is false but reason (R) is true.

Only one of which is the correct answer.

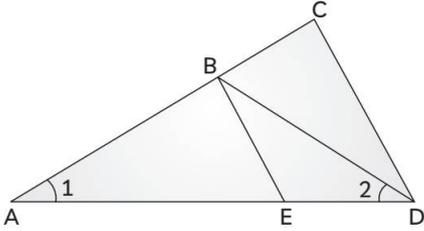
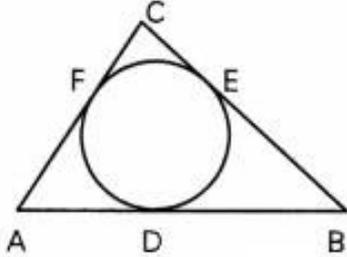
Q19.	<p>ASSERTION (A): The HCF of two numbers is 9 and their LCM is 2016. If the one number is 54, then the other number is 336.</p> <p>REASON (R): Relation between numbers and their HCF and LCM is product of two numbers $a, b = \text{HCF}(a,b) \times \text{LCM}(a,b)$.</p>	1
Q20.	<p>ASSERTION (A): -5, -5/2, 0, 5/2 is an Arithmetic progression.</p> <p>REASON (R): The terms of an Arithmetic Progression cannot have both positive and negative rational numbers.</p>	1

SECTION – B

(Very Short Answers)

This section comprises of VSA of 2 marks each

Q. No.	Question	Marks
Q21.	<p>For what values of k will the following pair of linear equations have infinitely many solutions ? $Kx + 3y - (k-3) = 0$ and $12x + ky - k = 0$ OR If $217x + 131y = 913$, $131x + 217y = 827$, then find the value of x and y.</p>	2
Q22.	<p>Find the value of x if $2 \operatorname{cosec}^2 30^\circ + x \sin^2 60^\circ - \frac{3}{4} \tan^2 30^\circ = 10$</p>	2
Q23.	<p>In the given figure below, $\frac{AD}{AE} = \frac{AC}{BD}$ and $\angle 1 = \angle 2$. Show that $\triangle BAE \sim \triangle CAD$.</p>	2

		
Q24.	<p>A circle is inscribed in a ΔABC having $AB=10\text{cm}$, $BC=12\text{cm}$ and $CA=8\text{cm}$ and touching these sides at D, E, F respectively. Find the lengths of AD, BE and CF.</p> 	2
Q25.	<p>The length of the minute hand of a clock is 14 cm. Find the area swept by the minute hand in 5 minutes.</p> <p>OR</p> <p>The radii of two circles are 8cm and 6cm respectively. Find the diameter of the circle having area equal to the sum of the areas of the two circles.</p>	2

SECTION – C
(Short Answers)

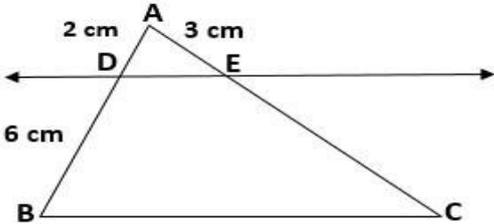
This section comprises of SA of 3 marks each

Q. No.	Question	Marks
Q26.	Given that $\sqrt{3}$ is irrational, prove that $2+5\sqrt{3}$ is irrational.	3
Q27.	Find the zeroes of the quadratic polynomial $6x^2 - 7x - 3$ and verify the relationship between the zeroes and the coefficients of the polynomial.	3
Q28.	Which term of the AP : 3, 15, 27, 39, . . . will be 132 more than its 54th term?	3
Q29.	Prove that $(\sin A + \operatorname{cosec} A)^2 + (\cos A + \sec A)^2 = 7 + \tan^2 A + \cot^2 A$ OR	3

	Prove that $\frac{\cos A}{1+\sin A} + \frac{1+\sin A}{\cos A} = 2 \sec A$	
Q30.	All the black face cards are removed from a pack of 52 playing cards. The remaining cards are well shuffled and then a card is drawn at random. Find the probability of getting (i) face card (ii) red card (iii) black card. OR Two coins are tossed simultaneously. What is the probability of getting (i) At least one head? (ii) At most one tail? (iii) A head and a tail?	3
Q31.	Prove that a parallelogram circumscribing a circle is a rhombus.	3

SECTION – D
(Long Answers)

This section comprises of LA type questions of 5 marks each

Q. No.	Question	Marks
Q32.	A man wished to give Rs. 12 to each person and found that he fell short of Rs. 6 when he wanted to give to all the persons present. He, therefore, distributed Rs. 9 to each person and found that Rs. 9 were leftover. How much money did he have and how many persons were there? OR A father's age is three times the sum of the ages of his children. After 5 years, his age will be two times the sum of their ages. Find the present age of the father.	5
Q33.	Prove that a line drawn parallel to one side of a triangle divides the other two sides in the same ratio. In the figure, find EC if $AD/DB = AE/EC$ using the above theorem. 	5
Q34.	A tent is in the shape of a cylinder surmounted by a conical top. If the height and diameter of the cylindrical part are 2.1 m and 4 m respectively, and the slant height of the top is 2.8 m, find the area of the canvas used for making the tent. Also, find the cost of the canvas of the tent at the rate of Rs. 500 per m^2 . OR A rectangular metal block has length 15 cm, breadth 10 cm and height 5 cm. From	5

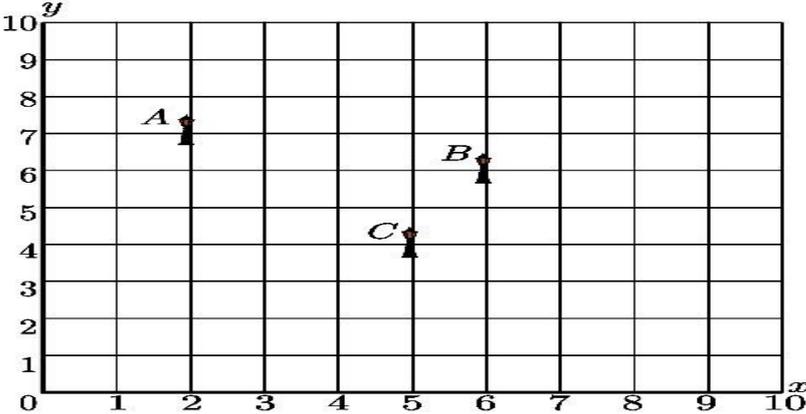
	this block, a circular hole of diameter 7 cm is drilled out. Find: (i) the volume of the remaining solid (ii) the surface area of the remaining solid.																					
Q35.	<p>The distribution below gives the marks of 100 students of a class, if the median marks are 24, find the frequencies f_1 and f_2</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Marks</td> <td>0-5</td> <td>5-10</td> <td>10-15</td> <td>15-20</td> </tr> <tr> <td>No. of students</td> <td>4</td> <td>6</td> <td>10</td> <td>f_1</td> </tr> <tr> <td>Marks</td> <td>20-25</td> <td>25-30</td> <td>30-35</td> <td>35-40</td> </tr> <tr> <td>No. of students</td> <td>25</td> <td>f_2</td> <td>18</td> <td>5</td> </tr> </table>	Marks	0-5	5-10	10-15	15-20	No. of students	4	6	10	f_1	Marks	20-25	25-30	30-35	35-40	No. of students	25	f_2	18	5	5
Marks	0-5	5-10	10-15	15-20																		
No. of students	4	6	10	f_1																		
Marks	20-25	25-30	30-35	35-40																		
No. of students	25	f_2	18	5																		

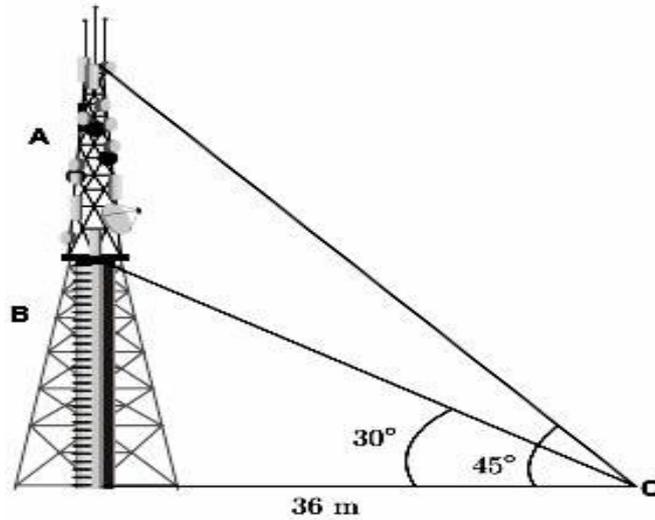
SECTION - E

(Case-study Based Questions)

This section comprises of 3 case-study based questions of 4 marks each with three sub-parts.

Q. No.	Question	Marks
Q36.	<p>. CASE STUDY -1</p> <p>In the month of April to June 2022, the exports of passenger cars from India increased by 26% in the corresponding quarter of 2021–22, as per a report. A car manufacturing company planned to produce 1800 cars in 4th year and 2600 cars in 8th year. Assuming that the production increases uniformly by a fixed number every year.</p> 	<p>(1)</p> <p>(1)</p> <p>(2)</p>
	<p>Based on the above information answer the following questions.</p> <p>(i) Find the production in the 1st year.</p> <p>(ii) Find the production in the 12th year.</p> <p>(iii) Find the total production in first 10 years.</p>	

	<p>OR</p> <p>(iii) In how many years will the total production reach 31200 cars?</p>	<p>(2)</p>
<p>Q37.</p>	<p>CASE STUDY -2</p> <p>Resident Welfare Association (RWA) of a Gulmohar Society in Delhi have installed three electric poles A, B and C in a society's common park. Despite these three poles, some parts of the park are still in dark. So, RWA decides to have one more electric pole D in the park. The park can be modelled as a coordinate system given below.</p>  <p>On the basis of the above information, answer the following questions:</p> <p>(i) What is the position of the pole C?</p> <p>(ii) What is the distance of the pole B from the corner O of the park?</p> <p>(iii) Find the position of the fourth pole D so that four points A, B, C and D form a parallelogram.</p> <p style="text-align: center;">OR</p> <p>(iii) What is the distance between poles A and C?</p>	<p>(1)</p> <p>(1)</p> <p>(2)</p> <p>(2)</p>
<p>Q38.</p>	<p>CASE STUDY -3</p> <p>Radio towers are used for transmitting a range of communication services including radio and television. The tower will either act as an antenna itself or support one or more antennas on its structure, including micro wave dishes. They are among the tallest human-made structures. There are 2 main types: guyed and self-supporting structures. On a similar concept, a radio station tower was built in two sections A and B. Tower is supported by wires from a point O. Distance between the base of the tower and point O is 36m. From point O, the angle of elevation of the top of section B is 30° and the angle of elevation of the top of section A is 45°.</p>	



- (i) What is the height of the section B ?
- (ii) What is the height of the section A?
- (iii) What is the length of the wire structure from the point O to the top of section A?

(1)
(1)
(2)

(OR)

- (iii) What is the length of the wire structure from the point O to the top of section B?

(2)



Pre-Board Examination (2025-26)

Class:10

Subject & Subject Code: Science Theory, (086)

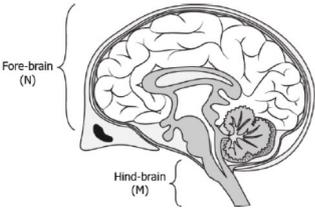
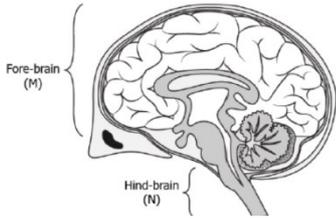
Time:3 hours

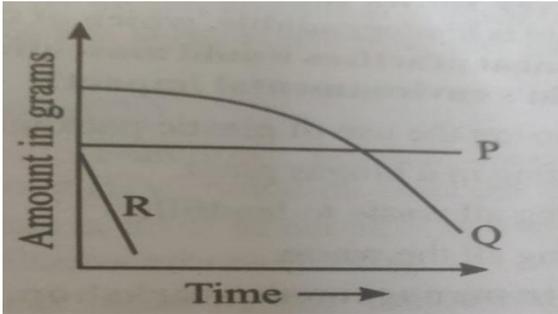
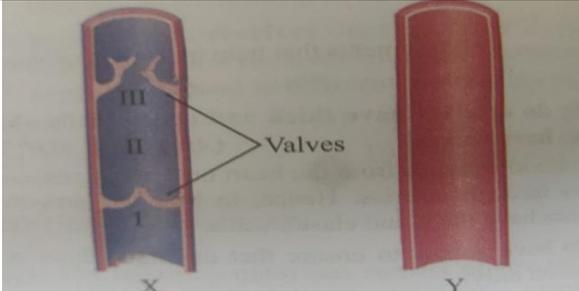
Max. Marks: 80

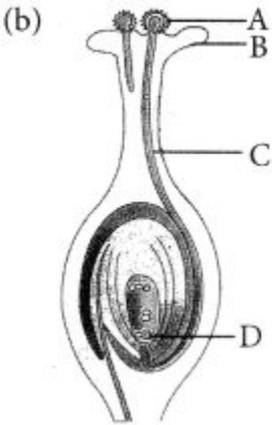
Instructions:

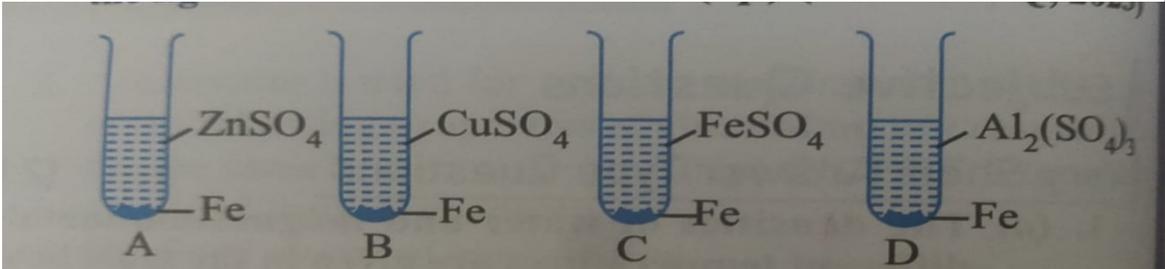
(i) This question paper consists of 39 questions in 3 sections. Section A is Biology; Section B is Chemistry and Section C is Physics.

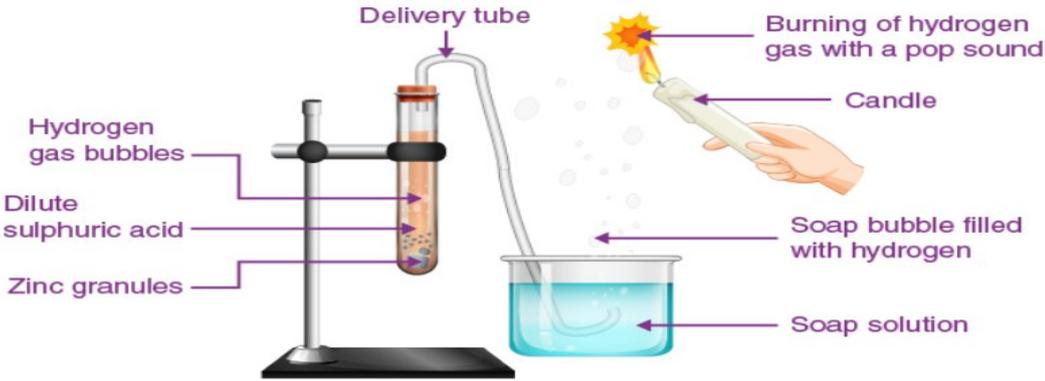
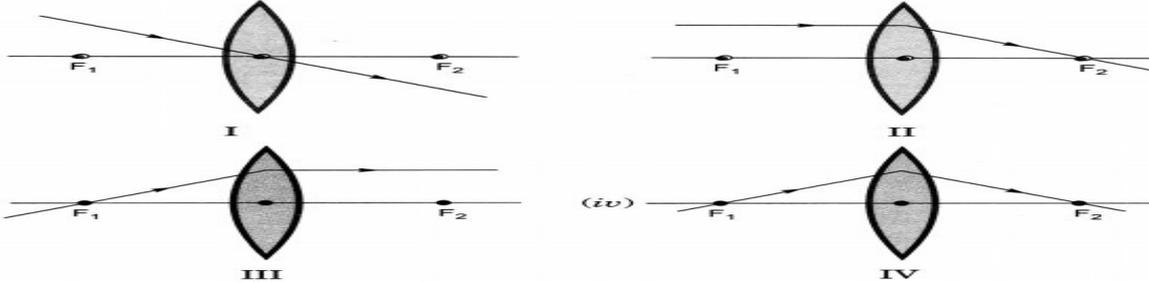
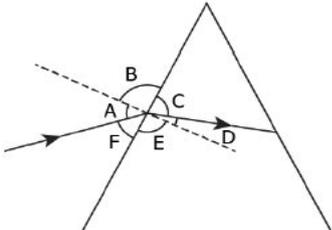
(ii) All questions are compulsory. However, an internal choice is provided in some questions. A student is expected to attempt only one of these questions.

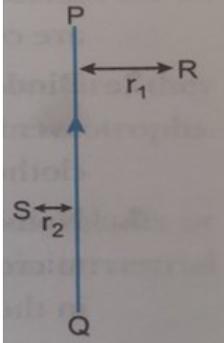
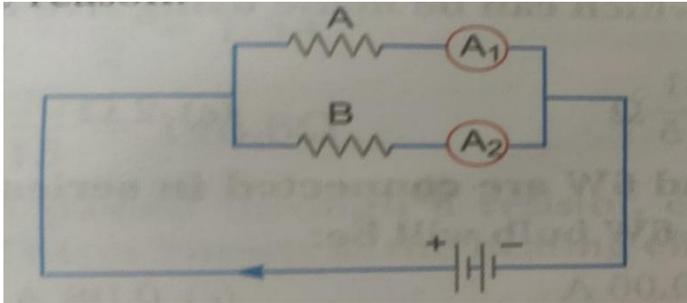
Q. No.	SECTION-A	Marks
1	Which of the following events in the mouth cavity will be affected if salivary amylase is lacking in the saliva? A. Starch breaking down into sugars. B. Proteins breaking down into amino acids. C. Absorption of vitamins. D. Fats breaking down into fatty acids and glycerol.	1
2	Height of a plant is regulated by: A. D.N.A which is directly influenced by growth hormone B. Genes which regulate the protein directly C. Growth hormones under the influence of the enzyme coded by a gene. D. Growth hormones directly under the influence of gene	1
3	The part where the exchange of gases occurs during respiration is: A. Lungs and larynx B. Alveoli and throat C. Throat and lungs D. Alveoli and capillaries	1
4	What is the ratio of average amount of energy absorbed by producers to the average amount of energy absorbed by the primary consumers? A. 1:2 B. 2:1 C. 1:10 D. 10:1	1
5	Which of the following option illustrates the location of the centre that controls the feelings associated with hunger (M) and the centre that allows a person to walk in a straight line (N)? A.  B.  C.  D. 	1

6	<p>Samaira conducted an experiment where she buried three different types of solid wastes (P, Q and R) under the soil in a pot to study their decomposition rates. The graph below shows the decomposition rates of these wastes over time.</p>  <p>Select the option that correctly identifies P, Q and R:</p> <table border="1"> <thead> <tr> <th>Option</th> <th>P</th> <th>Q</th> <th>R</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Banana peel</td> <td>Plastic bottle</td> <td>Paper cup</td> </tr> <tr> <td>B</td> <td>Polythene bag</td> <td>Bone</td> <td>Orange peel</td> </tr> <tr> <td>C</td> <td>Apple core</td> <td>Metal Can</td> <td>Cardboard</td> </tr> <tr> <td>D</td> <td>Rubber cover</td> <td>Vegetable scrap</td> <td>Wooden stick</td> </tr> </tbody> </table>	Option	P	Q	R	A	Banana peel	Plastic bottle	Paper cup	B	Polythene bag	Bone	Orange peel	C	Apple core	Metal Can	Cardboard	D	Rubber cover	Vegetable scrap	Wooden stick	1
Option	P	Q	R																			
A	Banana peel	Plastic bottle	Paper cup																			
B	Polythene bag	Bone	Orange peel																			
C	Apple core	Metal Can	Cardboard																			
D	Rubber cover	Vegetable scrap	Wooden stick																			
7	<p>A monohybrid cross was conducted between one variety of pea plants having pods that are full (FF) and another having pods that are constricted (ff). What is the percentage of heterozygous offsprings in F1 generation? A. 0% B. 25% C. 75% D.100%</p>	1																				
	<p>Following questions consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:</p> <p>A. Both ‘A’ and ‘R’ are true, and ‘R’ is correct explanation of the Assertion. B. Both ‘A’ and ‘R’ are true, but ‘R’ is not correct explanation of the Assertion. C. ‘A’ is true, but ‘R’ is false. D. ‘A’ is false, but ‘R’ is true.</p>																					
8	<p>Assertion (A): The trophic level in a food chain should be limited. Reason (R): There is a loss of energy as we go from one trophic level to the next, this limits the number of trophic levels in a food chain.</p>	1																				
9	<p>Assertion(A): The effect of auxin hormone on the growth of root is exactly opposite to that on a stem. Reason (R): Auxin hormone increases the rate of growth in root and decreases the rate of growth in stem.</p>	1																				
10	<p>All plants give out oxygen during the day and carbon dioxide during night. Do you agree with this statement? Give reason.</p>	2																				
11	<p>Students to attempt either option A or B.</p> <p>A. “The improvement in our lifestyle has led to the generation of large amount of waste material.” List two reasons to justify this statement.</p> <p style="text-align: center;">OR</p> <p>B. If all the waste generated is biodegradable, will this have an impact on the environment? Justify you answer.</p>	2																				
12	<p>Given below are two different types of blood vessels X and Y. Based on your observation, answer the following questions: (i) Identify X and Y (ii) In which direction does blood flow</p>		2																			

	in X? Do you think blood will flow from I to II? Give reason for your answer.	
13	<p>A 10 year old child was observed to be significantly shorter than other children of the same age. After a medical examination it was found that the child had deficiency of a particular hormone. Considering this scenario:</p> <p>(i) Identify the hormone likely to be deficient and the gland responsible for its secretion.</p> <p>(ii) Name the disorder caused due to over and under secretion of this hormone.</p>	3
14	<p>A green stemmed rose plant denoted by GG and a brown stemmed rose plant denoted by gg are allowed to undergo a cross with each other.</p> <p>A. List your observation regarding:</p> <p>(i) Colour of stem in F1 progeny.</p> <p>(ii) Percentage of brown stemmed plants in F2 progeny if F1 plants are self-pollinated.</p> <p>(iii) Ratio of GG and Gg in F2 progeny.</p> <p>B. Based on the findings of this cross, what conclusion can be drawn?</p>	3
15	<p>The human digestive system is a tube running from mouth to anus. Its main function is to break-down complex molecules present in the food which cannot be absorbed as such into smaller molecules. These molecules are absorbed across the walls of the tube, and the absorbed food reaches each and every cell of the body where it is utilised for obtaining energy.</p> <p>Based on the understanding of the concept answer the following questions:</p> <p>(i). Name the glands present in the buccal cavity and write the components of food on which the secretion of these glands act upon.</p> <p>(ii) Two organs have a sphincter muscle at their exit. Name them.</p> <p>Attempt either option (iii) or (iv)</p> <p>(iii) What will happen if:</p> <p>(a) mucus is not secreted by the gastric glands.</p> <p>(b) Villi are absent in the small intestine.</p> <p style="text-align: center;">OR</p> <p>(iv). "Bile juice does not contain any enzyme, yet it has important roles in digestion." Justify the statement.</p>	4
16	<p>Attempt either option A or B.</p> <p>A. (a)List two reasons for the appearance of variations among the progeny formed by sexual reproduction.</p> <p>(b)</p> <div style="display: flex; align-items: flex-start;">  <div style="margin-left: 20px;"> <p>(i) Name the part marked A in the diagram.</p> <p>(ii) How does A reach part B?</p> <p>(iii) State the importance of the part C.</p> <p>(iv) What happens to the part marked D after fertilisation is over?</p> </div> </div> <p style="text-align: center;">OR</p>	5

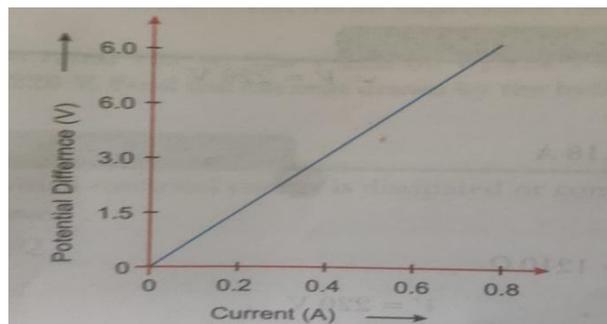
	D. 'A' is false, but 'R' is true.	
24	<p>Assertion (A): Following are the members of a homologous series: CH_3OH, $\text{CH}_3\text{CH}_2\text{OH}$, $\text{CH}_3\text{CH}_2\text{CH}_2\text{OH}$</p> <p>Reason (R): A series of compounds with same functional group but differing by $-\text{CH}_2$ unit is called a homologous series.</p>	1
25	<p>Sakshi was comparing the reactivity of different metals for her science project. She added iron filings in four test tubes A, B, C and D containing aqueous solution of ZnSO_4, CuSO_4, FeSO_4 and $\text{Al}_2(\text{SO}_4)_3$ respectively as shown in the figure:</p>  <p>(i) In which test tube will she observe the reaction to be most vigorous? Give reason for her observation. (ii) Write a balanced equation of the reaction.</p>	2
26	<p>(i) Oxide of an element X is used intensively in the cement industry. This element is present in bones also. On treatment with water, it forms a solution which turns red litmus blue. Identify X and write the chemical reactions involved. (ii) What happens when hydrogen gas is passed over the heated CuO? Mention the colour change and write chemical equation for the reaction.</p>	3
27	<p>Attempt either option A or B.</p> <p>A. Metal X is found in nature as its sulphide XS. It is used in the galvanisation of iron articles.</p> <p>(i) Identify the metal X. (ii) How will you convert this sulphide ore into the metal? Explain with equations.</p> <p style="text-align: center;">OR</p> <p>B. In the formation of a compound between two atoms P and R, P loses two electrons and R gains one electron.</p> <p>(i) What is the nature of the bond between P and R? (ii) Give the formula of the compound formed between P and R. (iii) Draw the electron-dot structure of MgCl_2 (iv) NaCl has high melting point. Why?</p>	3

28	<p>The preparation of hydrogen gas is shown in the figure given below. What would happen if the following changes are made?</p>  <p>(i). Instead of dilute sulphuric acid, dilute hydrochloric acid is taken (ii) In place of zinc, copper turnings are taken. Give reason for your answer. <u>Attempt either option (iii) or (iv)</u> (iii). In place of zinc granules, the same amount of zinc dust is taken in the test tube. OR (iv). Sodium hydroxide is taken in place of dilute sulphuric acid, and the tube is heated. Give equation for the reaction taking place.</p>	4
29	<p><u>Attempt either option A or B.</u> A. A carbon compound 'P' on heating with excess conc. H_2SO_4 forms another carbon compound 'Q' which on addition of hydrogen in the presence of nickel catalyst forms a saturated carbon compound 'R'. One molecule of 'R' on combustion, forms two molecules of carbon dioxide and three molecules of water. Identify P, Q and R and write chemical equations for the reactions involved. OR B. (i) The molecular formula of two carbon compounds X and Y are C_4H_8 and C_5H_{12} respectively. Which one of the two is most likely to show addition reaction? Justify your answer. Also give the chemical equation to explain the process of addition reaction in this case. (ii) Write the structural formula of ethanol. What happens when it is heated with excess of conc. H_2SO_4 at 443 K? Write the chemical equation for the reaction stating the role of conc. H_2SO_4 in this reaction.</p>	5
SECTION-C		
30	<p>The diagrams showing the correct path of the ray after passing through a convex lens are -</p>  <p>A. II and III only B. I and II only C. I, II and III D. I, II and IV</p>	1
31	<p>The image shows a light ray incident on a glass prism.</p>  <p style="text-align: center;">6</p>	6

36	<p>(i). A person suffering from presbyopia needs a bifocal lens. If he needs lenses of power +2.5D and -0.25D, which one of these two lenses is for the correction of distant vision and what is its focal length?</p> <p>(ii) With the help of a labelled diagram show the path followed by a narrow beam of mono-chromatic light is passed through a glass prism.</p>	3																
37	<p>PQ is the current carrying conductor in the plane of the paper as shown in the figure.</p> <p>(i) Find the directions of the magnetic fields produced by it at points R and S?</p> <p>(ii) Given $r_1 > r_2$, where will the strength of the magnetic field be larger? Give reason to support your answer.</p> <p>(iii) Explain the rule that is used to find the direction of the magnetic field for a straight current carrying conductor.</p>		3															
38	<p>Study the data given below showing the focal length of the three concave mirrors A, B and C and the respective distances of objects placed in front of the mirror.</p> <table border="1"> <thead> <tr> <th>Case</th> <th>Mirror</th> <th>Focal length (cm)</th> <th>Object distance (cm)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>A</td> <td>20</td> <td>45</td> </tr> <tr> <td>2</td> <td>B</td> <td>15</td> <td>30</td> </tr> <tr> <td>3</td> <td>C</td> <td>30</td> <td>20</td> </tr> </tbody> </table> <p>(i) In which of the above cases the mirror will form a diminished image of the object? Justify your answer.</p> <p>(ii). List two properties of the image formed by mirror in case 2. Attempt either option (iii) or (iv).</p> <p>(iii). What is the nature and size of the image formed by mirror C? Draw a ray diagram to justify your answer.</p> <p style="text-align: center;">OR</p> <p>(iv) An object is placed at a distance of 18cm from the pole of a concave mirror of focal length 12cm. Find the position of the image formed in this case.</p>	Case	Mirror	Focal length (cm)	Object distance (cm)	1	A	20	45	2	B	15	30	3	C	30	20	4
Case	Mirror	Focal length (cm)	Object distance (cm)															
1	A	20	45															
2	B	15	30															
3	C	30	20															
39	<p>Attempt either option A or B.</p> <p>A. (i) What is electrical resistivity?</p> <p>(ii) In a series electrical circuit comprising of a resistor having a metallic wire, the ammeter reads 5A. The reading of the ammeter decreases to half when the length of wire is doubled. Give reason.</p> <p>(ii) In the given circuit diagram, two resistance wires A and B are of same area of cross- section and same material but A is longer than B. Which ammeter A_1 or A_2 will indicate higher reading for current? Give reason.</p>  <p>(iii) State Joule's law of heating. Give its mathematical expression.</p> <p style="text-align: center;">OR</p>	5																

B. (i) State Ohm's law.

(ii) Name the physical quantity determined by the slope of V-I curve given in the diagram. Use this graph to find the value of this physical quantity in SI units.



(iii) A torch bulb is rated 5V and 500 mA. Calculate its: (a) power and (b) resistance.

पूर्व -परिषदीय परीक्षा-2025-26 / PRE-BOARD EXAM-(2025-26)

कक्षा X / CLASS – X

TIME: 2 Hrs

विषय: / SUBJECT: ARTIFICIAL INTELLIGENCE (417)

MM: 50

General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of 21 questions in two sections: Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. Out of the given (5 + 16 =) 21 questions, a candidate has to answer (5 + 10 =) 15 questions in the allotted (maximum) time of 2 hours.
5. All questions of a particular section must be attempted in the correct order.
6. SECTION A - OBJECTIVE TYPE QUESTIONS (24 MARKS):
7. i. This section has 05 questions.
8. ii. Marks allotted are mentioned against each question/part.
9. iii. There is no negative marking.
10. iv. Do as per the instructions given.
11. SECTION B – SUBJECTIVE TYPE QUESTIONS (26 MARKS):
12. i. This section has 16 questions.
13. ii. A candidate has to do 10 questions.
14. iii. Do as per the instructions given.
15. iv. Marks allotted are mentioned against each question/part.

SECTION A - OBJECTIVE TYPE QUESTIONS		
Q. No.	Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)	Marks
Q1.1	i. Which of the following is an example of self-management ? (a) Procrastinating tasks (b) Setting daily goals and achieving them (c) Ignoring deadlines (d) Avoiding teamwork	1
Q1.2	ii. In MS Word, pressing Ctrl + S is used to: (a) Save a file (b) Print a file (c) Close the window (d) Open a file	1
Q1.3	iii. Assertion (A): Entrepreneurs take calculated risks. Reason (R): Risk-taking is not an essential quality for entrepreneurship. Options: (a) Both A and R are correct, R explains A (b) Both A and R are correct but R does not explain A (c) A is correct but R is incorrect (d) A is incorrect but R is correct	1
Q1.4	iv. Identifying urgent vs. important work is an example of: (a) Organising (b) Prioritising (c) Tracking (d) Delegating	1
Q1.5	v. Which of the following is an environment-friendly practice ? (a) Excessive use of plastic bags	1

	(b) Using solar panels for electricity (c) Burning fossil fuels (d) Wasting water	
Q1.6	vi. While writing an email, clarity and conciseness reflect which communication skill? (a) Listening skills (b) Non-verbal skills (c) Writing skills (d) Speaking skills	1
Answer any 5 out of the given 6 questions on Employability Skills (1 x 5 = 5 marks)		
Q2.1	i. Assertion (A): AI is used in weather forecasting. Reason (R): AI cannot process large data sets. (a) Both A & R correct, R explains A (b) Both A & R correct, R not explanation (c) A correct, R incorrect (d) A incorrect, R correct	1
Q2.2	ii. Which of the following is an AI ethical concern ? (a) Using AI for medical diagnosis (b) AI replacing jobs (c) AI in fraud detection (d) AI in chatbots	1
Q2.3	iii. Which of the following best explains the role of Computer Vision in healthcare? (a) Detecting tumours from medical scans (b) Converting speech into text (c) Analysing purchase history for predictions (d) Translating languages	1
Q2.4	iv. In a neural network, the last layer is called: (a) Input layer (b) Hidden layer (c) Output layer (d) Middle layer	1
Q2.5	v. A word occurring very frequently in a dataset like “the”, “is” is called: (a) Rare word (b) Stop word (c) Unique word (d) Keyword	1
Q2.6	vi. Which of these is an example of structured data ? (a) Social media posts (b) Audio recordings (c) Excel spreadsheet of student marks (d) Images	1
Answer any 5 out of the given 6 questions on Employability Skills (1 x 5 = 5 marks)		
Q3.1	Which of the following is NOT AI ? (a) Alexa voice assistant (b) Autopilot in airplanes (c) Washing machine with timer (d) Google Translate	1
Q3.2	Features collected during Data Science are called: (a) Instances (b) Labels (c) Attributes (d) Files	1
Q3.3	Which of these is an AI application in healthcare? (a) Online ticket booking (b) X-ray image analysis (c) Weather prediction (d) E-commerce cart system	1
Q3.4	Identifying faces in CCTV footage is an example of: (a) Classification	1

	(b) Object Detection (c) Sentiment Analysis (d) Translation	
Q3.5	Which type of chatbot can learn and improve over time? (a) Scripted bot (b) Smart bot (c) Rule-based bot (d) Static bot	1
Q3.6	Precision & Recall are combined in: (a) Confusion matrix (b) Accuracy (c) F1 Score (d) ROC Curve	1
Answer any 5 out of the given 6 questions on Employability Skills (1 x 5 = 5 marks)		
Q4.1	AI systems that learn from large datasets using multiple layers are called: (a) Deep Learning (b) Data Mining (c) Machine Learning (d) Supervised Learning	1
Q4.2	Assertion (A): Training data is used to build the model. Reason (R): Testing data is used to check accuracy. Options: (a) Both A & R correct, R explains A (b) Both A & R correct, R not explanation (c) A correct, R incorrect (d) A incorrect, R correct	1
Q4.3	A colour image generally has how many channels? (a) 1 (b) 2 (c) 3 (d) 4	1
Q4.4	Which NLP application detects customer feedback mood? (a) Machine Translation (b) Sentiment Analysis (c) Speech Recognition (d) Text Summarisation	1
Q4.5	Using the same dataset for training and evaluation causes: (a) Bias (b) Overfitting (c) Underfitting (d) Normalisation	1
Q4.6	Data used for checking accuracy of a model is called: (a) Raw data (b) Testing data (c) Training data (d) Noise	1
Answer any 5 out of the given 6 questions on Employability Skills (1 x 5 = 5 marks)		
Q5.1	Google Translate belongs to which AI domain? (a) Computer Vision (b) Data Science (c) Natural Language Processing (d) Robotics	1
Q5.2	The smallest unit of an image is called: (a) Vector (b) Pixel (c) Byte (d) Frame	1
Q5.3	The grammar rules of a language define its:	1

	(a) Semantics	(b) Syntax	(c) Vocabulary	(d) Sentiment										
Q5.4	Creating word frequency from a text corpus is done using: (a) Tokenisation (b) Bag of Words (c) Stemming (d) Lemmatization				1									
Q5.5	In AI evaluation, high false positives in a medical test mean: (a) Healthy patient predicted sick (b) Sick patient predicted healthy (c) All predictions are correct (d) None of these				1									
Q5.6	Which of these is an AI application in banking ? (a) Chatbots for customer queries (b) Washing machine sensors (c) IoT smart lighting (d) Alarm clock				1									
SECTION B - SUBJECTIVE TYPE QUESTIONS														
Q. No.	Answer any 3 out of the given 5 questions on Employability Skills (2 x 3 = 6 marks) Answer each question in 20 - 30 words.				Marks									
Q6	Mention any two advantages of face-to-face communication?				2									
Q7	Why is time management important for students?				2									
Q8	What is phishing in computer terminology?				2									
Q9	Give two qualities of a successful entrepreneur?				2									
Q10	List two human practices that support sustainable development?				2									
Answer any 4 out of the given 6 questions in 20 - 30 words each (2 x 4 = 8 marks)														
Q11	Why do social media apps collect user data?				2									
Q12	Which learning approach is used when the dataset has both input and output labels?				2									
Q13	List two precautions while collecting data for an AI project .				2									
Q14	Explain the term "Pixel Resolution" with an example. ?				2									
Q15	Identify two stop words from the sentence: "Students are preparing for the annual school function today."				2									
Q16	Draw a confusion matrix if TP=30, TN=50, FP=20, FN=10. ?				2									
Answer any 3 out of the given 5 questions in 50- 80 words each (4 x 3 = 12 marks)														
Q17	Define Artificial Intelligence. Explain with an example from daily life?				4									
Q18	List some advantages and disadvantages of Neural Network.				4									
Q19	Differentiate between Supervised and Unsupervised Learning with examples. ?				4									
Q20	What challenges may occur when training AI systems to understand human languages? Give two points ?				4									
Q21	An AI model predicted student exam results: <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="padding: 5px;">Reality</th> <th style="padding: 5px;">Pass</th> <th style="padding: 5px;">Fail</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Predicted Pass</td> <td style="padding: 5px;">40</td> <td style="padding: 5px;">15</td> </tr> <tr> <td style="padding: 5px;">Predicted Fail</td> <td style="padding: 5px;">10</td> <td style="padding: 5px;">35</td> </tr> </tbody> </table> (i) How many wrong predictions are there? (ii) Calculate Precision, Recall, and F1 Score .				Reality	Pass	Fail	Predicted Pass	40	15	Predicted Fail	10	35	4
Reality	Pass	Fail												
Predicted Pass	40	15												
Predicted Fail	10	35												

PRE-BOARD EXAMINATION, (2025 - 2026)

CLASS-X

ENGLISH LANGUAGE AND LITERATURE (Code 184)

Max. Time-3Hours

MAX. Marks 80.

General Instructions:

Read the instructions very carefully and strictly follow them:

1. This question paper comprises 11 questions. All questions are compulsory
2. The question paper contains THREE sections
 - Section – A: Reading Skills
 - Section – B: Grammar and Creative Writing Skills
 - Section – C: Literature Textbook
3. Attempt questions based on specific instructions for each Part.

SECTION- A

READING SKILLS (20 Marks)

1- Read the following passage and then answer the following questions. (10)

(1) Listening is the ability to accurately receive and interpret messages in the communication process. One of the greatest gifts any of us can ever receive is the gift of listening. It is also one of the greatest gifts we can ever give.

Unfortunately, it appears to be a lost art. We live in a world where everyone is talking but few are listening. What often passes for listening is simply one person pausing to collect their thoughts for their next soliloquy.

(2) Hearing refers to the sounds that you hear, whereas listening requires more than that: it requires focus. Listening means paying attention not only to the story, but how it is told, the use of language and voice, and how the other person uses his or her body. In other words, it means being aware of both verbal and non-verbal messages. Your ability to listen effectively depends on the degree to which you perceive and understand these messages.

(3) Listening is a difficult task. Like every skill, the more you do it, the better you get. Listening can be developed through practice, or lost if not used regularly. Good listeners focus on what they are hearing. They pause to think about what they've heard before responding. They ask questions because they want to know the answers, not just to keep the conversation going.

(4) So often, we are distracted with other things. We try to listen while continuing to work on the computer or watch television. To be fully present means we eliminate these distractions and focus exclusively on the other person. It takes great effort to be fully present in the moment, leaning forward, with your ears and heart open. Words are only part of the communication. Sometimes we need to experience the other person's feelings to really understand. We need to listen with our heart as well as our mind. We must repeat back what the other person has said. When we do this-and do it accurately-we communicate what we understand. It also gives us an opportunity to recalibrate our understanding if we have misunderstood something. Plenty of people are good talkers. Few are good listeners. If you develop the latter skill, you will find yourself invited into amazing conversations that wouldn't otherwise happen.

Answer the following questions, based on the passage.

i. Based on your understanding of the passage, why has the author described listening as "lost art"?
Answer in about 40 words. (2)

ii. Complete the sentence appropriately.

The author is disappointed that pausing to collect their thoughts is often considered
as (1)

iii. What does the author imply by saying we should listen with both "heart and mind"? (2)

iv. "Listening is not just hearing words. Good listeners focus on what they are hearing and try to perceive the feelings behind the words. They do not overlook the emotions of the speaker. True listening helps us understand others and is one of the greatest gifts we can give."

From the words used in the passage, identify the pair that are opposite in meaning:

1. Perceive – Overlook
2. Focus – Ignore
3. Understand – Misinterpret
4. Listening – Speaking

A. 1 and 2, B. 3 and 4, C. 2 and 4, D. 1 and 4

v. Complete the sentence appropriately.

Our ability to listen effectively depends on the (1)

vi. "To be fully present" in a conversation means. (1)

- A. Sitting silently
- B. Avoiding distractions and focusing
- C. Taking notes constantly
- D. Agreeing with the speaker

vii. To repeat back what the other person has said gives us (1)

- A. an opportunity to argue against the speaker's point
- B. a method to dominate the conversation
- C. a way to shift attention from the discussion
- D. an opportunity to correct our understanding if we got it wrong

viii. In the statement "*Good listeners focus on what they are hearing*", the language is primarily: (1)

- A. Figurative
- B. Direct and literal
- C. Persuasive
- D. Poetic

2 Read the following report: (10)

10 ABC School Launches Innovative AI Club to Foster Interest in Artificial Intelligence (by Samira Rao, Secretary, AI Club Ahmedabad)

Nov. 20 – ABC School proudly announces the establishment of its first AI Club, designed to spark interest and engagement in the field of artificial intelligence among students. The club was officially

launched during the school's technology fair on October 18, attracting a diverse group of students eager to learn about AI and its applications.

The event was inaugurated by Ms. Anita Sharma, the school's head of the computer science department, and Raj Mehta, the club's president, who shared their excitement about the potential of AI in shaping the future. They emphasised the importance of understanding AI technologies and their ethical implications in today's rapidly evolving digital landscape. The club aims to provide students with practical experiences through workshops, projects, and discussions with industry professionals. During the fair, club members showcased a series of interactive demonstrations, including AI-powered catboats and simple machine learning models. Attendees were encouraged to participate in coding challenges and explore various AI applications, such as image recognition and natural language processing. The enthusiasm and creativity displayed by the students highlighted their eagerness to dive deeper into this fascinating field. The AI Club has planned a variety of upcoming activities, including coding workshops, guest lectures from AI experts, and collaborative projects with local tech companies. They are also organising a hackathon, where students will have the opportunity to develop their own AI-driven solutions to real-world problems. The AI Club aims to equip students with essential skills and knowledge while fostering a collaborative and innovative learning environment. Created for academic usage /249

Answer the following questions, based on the report above:

I. Complete with a suitable reason:

The AI Club was motivated to plan various upcoming activities because _____. (1)

II. The AI Club intends to deepen students' understanding of artificial intelligence by offering _____, real-world projects, and collaborative sessions with experts in the field. (1)

III. What was the primary goal of the AI Club when it was launched? (1)

- A) To organize coding competitions for students
- B) To teach students about AI and its ethical use
- C) To focus on robotics and hardware development
- D) To prepare students for annual technology fairs

IV. Who did the AI Club collaborate with to provide students hands-on experiences and expert guidance? (1)

- 1. Faculty members
- 2. Local business leaders
- 3. Industry professionals
- 4. Computer science department head
- 5. AI researchers

Select the correct option:

- A. Only 2
- B. Only 5
- C. 3 and 4
- D. 1 and 5

V. What was the most likely purpose of the interactive demonstrations showcased during the technology fair? (1)

VI. What does the passage suggest about the students' interest in artificial intelligence? (1)

VII. What specific skills are the students expected to develop through their participation in the AI Club? (2)

VIII. Explain how the AI club at ABC School aligns with the school's goals of promoting holistic education. (2)

SECTION – B

GRAMMAR AND CREATIVE WRITING SKILLS (20 MARKS)

GRAMMAR (10M)

3. Complete ANY TEN of twelve of the following tasks, as directed. (1×10)

i. Fill in the blank by choosing the correct option to complete the given sentence. (1)

The Indian Constitution guarantees the Right to Equality, which means that (each/any/few/many) citizen is equal before the law and cannot be discriminated against on grounds of religion, race, caste, gender, or place of birth.

ii. Choose the correct option to complete the dialogue. (1)

Ravi: Hi Meera, have you finished your homework?

Meera: Yes, "

Ravi: Wonderful! Then let's revise together.

A. I haven't started yet

B. I have already completed it

C. I don't want to do it

D. I will do it later

iii. Complete the following sentence. (1)

He has practiced speaking English every day, and now he to participate in the school debate competition.

A. had decide

B. decides

C. is preparing

D. was decided

iv. Change the given dialogue into indirect speech. (1)

Priya: Will you join the football team this year?

Arun: Yes, I will.

Priya asked Arun if the football team that year.

v. Fill in the blank by choosing the correct option. (1)

If you want to stay healthy, you eat a balanced diet.

- A. may B. should C. could D. would

vi. Select the option that identifies the error and supplies the correction for the closing line, from a formal report. (1)

Therefore, the survey indicate that most students prefer group study over self-study.

Option

- A. no error
B. correction
- a. indicate indicates
b. most mostly
c. over for
d. therefore However

vii. Rahul: "Where are you going tomorrow, Neha?" (1)

Neha: "I am leaving for Delhi to attend my cousin's wedding."

Question:

Rahul asked Neha _____.

- A. where was she going the next day?
B. where she was going the next day.
C. where she is going the following day.
D. where had she gone the next day.

viii. Fill in the blank by choosing the correct option to complete the sentence to update the result of the regional science fair: (1)

We have exciting news to share! Our school _____ the first place in the regional science fair.

- (A) awarded (B) was awarded (C) had awarded (D) will be awarded

ix. Complete the line from a song by filling in the blank with the correct option: (1)

The morning dew captures your essence,
The flowers and grass _____ your colour,
The Sunrise embraces your arrival,
As the dawn welcomes a new day.

- (A) reflect (B) reflects (C) reflected (D) shall reflect

x. Identify the error and supply correction for the given sentence: (1)

The public health campaign aimed in increase awareness of the risks associated with underage drinking.

xi. Fill in the blank by choosing the correct option to complete the update on the school's chess team.

(1)

It's a victorious day!

Our school's chess team _____ the interschool chess championship.

(A) has been won (B) will winning (C) was winning (D) has won

xii. Complete the line from a song by filling in the blank with the correct option. (1)

The whispering leaves tell your tale,

The silent stones _____ your journey,

The sun casts light on your path,

Leading you towards tomorrow's glory.

(A) have echoed (B) echo (C) echoes (D) shall echo

CREATIVE WRITING SKILLS (10M)

4 (A) As Nalini Sharda of 409, Surya Apartments, Gopalpur, you believe that pedestrian safety is very important. Footpaths on both sides of the main roads of your city need major repairs and on some stretches they need to be constructed.

Write a letter to the MLA of your city area, in about 120 words, stressing the need for footpaths for pedestrian safety. Share your concern for maintenance of existing footpaths and the need to construct new ones where they are required. (1 × 5 = 5)

OR

4(B) As Sohail Khan, the sports captain of Pinnacle Public School, you believe that fitness as a lifestyle should be promoted. Write a letter to the Editor of a national daily, in about 120 words, suggesting the introduction of "Cycle to School" campaign for school going students. The programme aims to develop the habit of exercising through cycling to maintain fitness and keeping children active. Share the importance and credibility of such a programme and suggest a feasible way to execute it along with possible activities. (1×5=5)

5 (A) An area is believed to be water stressed when annual water supplies drop below 1700 cubic metres per person per year. As per an analysis, we are already surviving with around 1700-1800 cubic metres per person per year. As our demand for water has increased drastically over the years, per capita water availability has taken a beating. Based on the given table, write an analytical paragraph, in about 120 words, analysing the possible causes of water scarcity in the future. (5M)

TABLE ON WATER AVAILABILITY

Year	Population (Million)	Per capita water (Availability M3/year)
1951	361	5177
1955	395	4732
1991	846	2209
2001	1027	1820
2025	1394	1341
2050	1640	1140

OR

5(B) Read the given details of a playground intended for your resident area. (5M)

- A central climbing structure inspired by traditional Indian architecture, such as a miniature fort, with multiple levels and slides.
- Swings adorned with colorful Indian patterns, along with monkey bars and a zip line.
- A water play feature inspired by Indian fountains or rivers
- Shaded seating areas with benches and swings, resembling traditional chaupals or gazebos.
- Trees, shrubs, and flower beds
- Ample open space

Analyse the details and write an analytical paragraph in about 120 words about the suitability of this playground. Focus on factors such as safety, inclusivity, fun features, suitability for different age groups, and overall experience.

SECTION-C

LITERATURE TEXT BOOKS (40 Marks)

6. Read the following extracts and answer the questions for ANY ONE of the given two. **5**

(A) On the day of the inauguration, I was overwhelmed with a sense of history. In the first decade of the 20th century a few years after the bitter Anglo-Boer war and before my own birth, the white skinned people of South Africa patched up their differences and created a system of racial domination against the dark-skinned people of their own land. The structure they created formed the basis of one of the harshest, most inhumane societies the world has ever known. Now, in the last decade of the twentieth century, and my own eighth decade as a man, that system has been overturned forever and replaced by one that recognised the rights and freedoms of all peoples, regardless of the colour of their skin.

(i) What did the narrator feel when he said, “*I was overwhelmed with a sense of history*”? Explain in your own words. (1)

(ii) The system of racial domination created by white-skinned people in South Africa has now been replaced by a system that: (1)

- A) Recognises the rights and freedoms of all people.
- B) Focuses mainly on the education of the Black population.
- C) Reminds people of past bitter experiences.
- D) Prioritises the personal growth of individuals.

(iii) Comment on the kind of society apartheid had created? (2)

(iv) In the extract, the phrase “*patched up their differences*” can be best replaced by: (1)

- A) Resolved their disagreements
- B) Ignored their differences
- C) Complicated their conflicts
- D) Postponed their issues

OR

6(B) I started right away at the Montessori Nursery School. I stayed there until I was six, at which time I started in the first form. In the sixth form, my teacher was Mrs. Kuperus, the headmistress. At the end of the year we were both in tears as we said a heart-breaking farewell. In the summer of 1941, Grandma fell ill and had to have an operation, so my birthday passed with little celebration.

(i) "In the summer of 1941, Grandma fell ill and had to have an operation, so my birthday passed with little celebration." What can you infer about Anne from this sentence? Write any one point. (1)

(ii) In the passage, Anne and Mrs. Kuperus were "both in tears." This shows that their relationship was:

(1)

A) Formal and distant
C) Warm and affectionate

B) Friendly but not close
D) Strict and disciplinary

(iii) Why was Anne so emotional when saying goodbye to Mrs. Kuperus at the end of the year? Explain in 2–3 sentences? (2)

iv) Substitute the word 'heart-breaking' with a word similar in meaning in the following sentence. (1)

"At the end of the year we were both in tears as we said a heart-breaking farewell."

7. Read the following extracts and answer the questions for ANY ONE of the given two: **5**

(a) In a world of possessions. People will take

Balls, balls will be lost always, little boy.

And no one buys a ball back. Money is external.

He is learning, well behind his desperate eyes,

The epistemology of loss, how to stand up

Knowing what every man must one day know

And most know many days, how to stand up.

(The Ball Poem)

(i) Fill in the blank with one word.

When the speaker says "People will take balls, Balls will be lost always, little boy", his tone is.....(1)

(ii) The poet says that money is external. What inference can be drawn from this statement? Answer in about 40 words. (2)

(iii) Which of the following best describes the speaker's attitude towards material possessions? (1)

(A) Indifferent (B) emotional (C) Casual (D) respectful

(iv) Identify the poetic device used in "And no one buys a ball back". (1)

OR

(b) Don't eat that chocolate, Amanda!

Remember your acne, Amanda!

Will you please look at me when I'm speaking to you, Amanda!

(I am Rapunzel, I have not a care;

life in a tower is tranquil and rare;

I'll certainly never let down my bright hair!)

(i) What is the central idea of the poem as reflected in the lines above? Answer in about 40 words.(2)

(ii) Complete the sentence with the appropriate option. (1)

"Will you please look at me when I'm speaking to you, Amanda!" tells us that the mother's attitude is

- (A) Loving (B) relaxed (C) Authoritative (D) thoughtful

(iii) Identify any one poetic device used in the above extract. (1)

(iv) For what reason does Amanda imagine herself to be Rapunzel? (1)

8. Answer ANY FOUR of the following five questions in 40-50 words each: (4×3=12)

A). What conditions made crossing the storm clouds difficult? "The Black Aeroplane".

b). How did the Buddha respond to Kisa Gotami's request? What can be inferred about his method of teaching from the same? "The Sermon at Benares"

c). "The Lomovs and the Chubukovs have always had the most friendly, and I might almost say the most affectionate, regard for each other." How would you evaluate Lomov and Chubukov's relationship as neighbours? "The Proposal"

d). 'The field was white, as if covered with salt.' This is how the field is described after the hailstorm. The pelting hailstones could have been easily seen as sugar cubes. Do you think comparing it with sugar would have been more appropriate? Why/Why not? "A Letter to God".

e). When would the baker come every day? Why did the children run to meet him? "Glimpses of India"

9. Answer ANY TWO of the following three questions in 40 50 words each: (2×3=6)

a). According to a popular quote - "Where there is no struggle, there is no strength". In what way is this quote relevant to the events of the story "A Triumph of Surgery"?

b). How does education play a transformative role in Bholi's life?.

c). "Stereotypes are often misleading". Elaborate on the given quote in the context of "The Midnight Visitor".

10. Answer ANY ONE of the following two questions in 100-120 words. (6)

(a) Grief or sadness is an emotion natural to all types of loss or significant change. You have been asked to present an analysis of the approaches of Lencho and Kisa Gotami in dealing with their respective losses. Write this presentation draft including your insights, and comparing the approaches of both.

You may begin like this One acknowledges that Lencho had unwavering faith in God whereas Kisa Gotami in her grief, believed that her sonhowever.....

(Reference - A Letter to God and The Sermon at Benares)

OR

(b) You have been chosen to address the school assembly on the occasion of Women's Day. You choose to speak on the resilience and indomitable spirit of the young girls: Anne Frank and Valli. Prepare the speech draft, with reference to the commonality and contrast in the situations and circumstances of both the girls.

(Madam Rides the Bus and From the Diary of Anne Frank)

You may begin like this: Good morning everyone. Today, I'd like to express my insights on the resilience of two young girls. You may end this way: To conclude I'd like to say that.....

Thank

you.

11. Answer ANY ONE of the following two questions in 100-120 words: (6)

(i) How did the lady in red manage to outsmart and out manoeuvre the other thief, Horace Danby, by robbing the safe without leaving a single fingerprint? (A Question of Trust)

OR

(ii) Hari Singh says "He knew it but neither his lips nor his eyes showed anything."

Anil successfully addressed the situation by not addressing it at all. Elaborate based on your reading of The Thief's Story.

PRE-BOARD EXAMINATION (2025-26)
CLASS - X
MATHEMATICS (BASIC) – Code No. 241 (SET- 4)

Maximum marks:80 Time:3 hours

General Instructions: -

Read the following instructions carefully and follow them: -

1. This question paper contains 38 questions. All Questions are compulsory.
2. This Question Paper is divided into 5 Sections A, B, C, D and E.
3. In Section A, Question numbers 1-18 are multiple choice questions (MCQs) and question no.19 and 20 are Assertion- Reason based questions of 1 mark each.
4. In Section B, Question numbers 21-25 are very short answer (VSA) type questions, carrying 02 marks each.
5. In Section C, Question numbers 26-31 are short answer (SA) type questions, carrying 03 marks each.
6. In Section D, Question numbers 32-35 are long answer (LA) type questions, carrying 05 marks each.
7. In Section E, Question numbers 36-38 are case study-based questions carrying 4 marks each with sub parts of the values of 1, 1 and 2 marks each respectively.
8. There is no overall choice. However, an internal choice in 2 questions of Section B, 2 questions of Section C and 2 questions of Section D has been provided. An internal choice has been provided in all the 2 marks questions of Section E.
9. Draw neat and clean figures wherever required. Take $\pi = 227$ wherever required if not stated.
10. Use of calculators is not allowed.

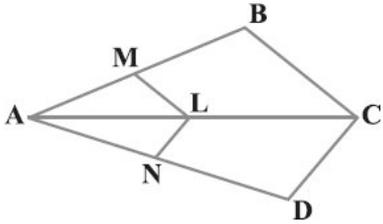
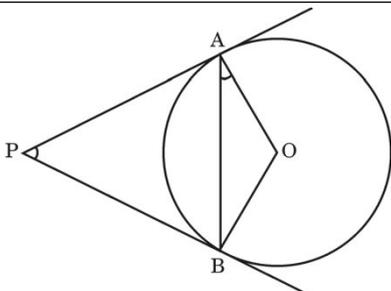
SECTION – A		
(Multiple Choice Questions)		
Each MCQ of 1mark, has four options with only one correct option, choose the correct option		
Q.No.	Question	Marks
Q1.	Let E be an event such that $P(\text{not}E) = \frac{1}{5}$, then P(E) is equal to: A) $\frac{1}{5}$ B) 1 C) 0 D) $\frac{4}{5}$	1
Q2.	If $p(x) = x^2 + 5x + 6$, then $p(-2)$ is: A)20 B)0 C)-8 D)8	1
Q3.	The mode of the numbers 2,3,3,4,5,4,4,5,3,4,2,6,7 is: A)2 B)3 C)4 D) 5	1
Q4.	How many tangents can be drawn to a circle from a point on it ? A)One B)Two C)Infinite D)Zero	1
Q5.	A quadratic equation whose one root is 2 and the sum of whose roots is zero, is : A) $x^2 + 4 = 0$ B) $x^2 - 2 = 0$ C) $4x^2 - 1 = 0$ D) $x^2 - 4 = 0$	1
Q6.	Which one of the following is not a quadratic equation	1

	A) $(x + 2)^2 = 2(x + 3)$ C) $(x + 2)(x - 1) = x^2 - 2x - 3$	B). $x^2 + 3x = (-1)(1 - 3x)^2$ D) $x^3 - x^2 + 2x + 1 = (x + 1)^3$	
Q7.	A quadratic polynomial whose sum and product of zeroes are 2 and -1 respectively is :		1
	A) $x^2 + 2x + 1$	B) $x^2 - 2x - 1$	C) $x^2 + 2x - 1$
	D) $x^2 - 2x + 1$		
Q8.	(HCF × LCM) for the numbers 30 and 70 is:		1
	A) 2100	B) 21	C) 210
	D) 70		
Q9.	The length of the arc of a circle of the radius 14 cm which subtends an angle of 60° at the centre of the circle is		1
	A) $44/3$ cm	B) $88/3$ cm	C) $308/3$ cm
	D) $616/3$ cm		
Q10.	If the radius of a semi-circular protractor is 7 cm, then its perimeter is:		1
	A) 11 cm	B) 14 cm	C) 22 cm
	D) 36 cm		
Q11.	The angle of elevation of the top of a 15 m high tower at a point $15\sqrt{3}$ m away from the base of the tower is:		1
	A) 30°	B) 45°	C) 60°
	D) 90°		
Q12.	If in $\triangle ABC$, $\angle C = 90^\circ$, then $\sin(A + B) =$		1
	A) 0	B) $\frac{1}{2}$	C) $1/\sqrt{2}$
	D) 1		
Q13.	A bag has 3 red balls and 5 green balls. If we take a ball from the bag, then what is the probability of getting a red ball?		1
	A) $3/5$	B) $5/8$	C) $3/8$
	D) $8/3$		
Q14.	If two positive integers A and B can be expressed as $A = xy^3$ and $B = x^4y^2z$; x, y being prime numbers, the LCM(A, B) is		1
	A) xy^2	B) x^4y^2z	C) x^4y^3
	D) x^4y^3z		
Q15.	The lines represented by the given equations $4x + 2y = 16$ and $3x - y = 8$ are :		1
	A) Parallel	B) Intersecting	C) Coincident
	D) Perpendicular		
Q16.	If $\triangle ABC \sim \triangle DEF$ and $\angle A = 47^\circ$, $\angle E = 83^\circ$, then $\angle C$ is equal:		1
	A) 47°	B) 50°	C) 83°
	D) 130°		
Q17.	PQ and PR are the two tangents to a circle of centre O at the points Q and R on the circle if $\angle QPR = 40^\circ$, then $\angle QRO$ is		1
	A) 10°	B) 20°	C) 40°
	D) 140°		
Q18.	If a pair of linear equations is consistent, then the lines will be		1
	A) always coincident	B) parallel	
	C) always intersecting	D) intersecting or coincident	
Each of the following questions contains two statements i.e., ASSERTION and REASON, and has following four choices.			
A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).			
B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).			
C) Assertion (A) is true but reason (R) is false.			
D) Assertion (A) is false but reason (R) is true.			
Only one of which is the correct answer.			
	ASSERTION (A): If one root of the quadratic equation $4x^2 - 10x + (k - 4) = 0$ is		1

Q19.	reciprocal of the other, then value of k is 8. REASON (R): Roots of the quadratic equation $x^2 - x + 1 = 0$ are real.	
Q20.	ASSERTION (A): A tangent to a circle is perpendicular to the radius through the point of contact. REASON (R): The lengths of tangents drawn from an external point to a circle are equal.	1

SECTION – B
(Very Short Answers)

This section comprises of VSA of 2 marks each

Q. No.	Question	Marks
Q21.	(A) Find the discriminant of the quadratic equation $3x^2 - 2x + 1/3 = 0$ and hence find the nature of its roots. OR (B) Find the roots of the quadratic equation $x^2 + x - 2 = 0$.	2
Q22.	In the given figure, if $LM \parallel CB$ and $LN \parallel CD$, prove that : $AM/AB = AN/AD$	2
		
Q23.	If $\cos(A + B) = 0$ and $\sin(A - B) = \sqrt{3}/2$, then find the value of A and B where A and B are acute angles.	2
Q24.	A) Find the coordinates of the point which divides the join of A(-1,7) and B(4,-3) in the ratio 2:3. OR B) Show that the points (-2, 3), (8, 3) and (6, 7) are the vertices of a right-angled triangle.	2
Q25.	PA and PB are tangents drawn to the circle with centre O as shown in the figure. Prove that $\angle APB = 2 \angle OAB$.	2
		

SECTION – C
(Short Answers)

This section comprises of SA of 3 marks each

Q. No.	Question	Marks
Q26.	Find the area of the sector of a circle of radius 7cm and of central angle 90°. Also, find the area of corresponding major sector.	3
Q27.	If α, β are zeroes of the quadratic polynomial $x^2 - 5x + 6$, form another quadratic polynomial whose zeroes are $1/\alpha, 1/\beta$.	3
Q28.	A die is rolled once. Find the probability of getting: (i) An even prime number. (ii) A number greater than 4. (iii) An odd number.	3
Q29.	Prove that : $\frac{1+\tan^2 A}{1+\cot^2 A} = \left(\frac{1-\tan A}{1-\cot A}\right)^2 = \tan^2 A$	3
Q30.	(A) Two concentric circles with centre O are of radii 3 cm and 5 cm. Find the length of chord AB of the larger circle which touches the smaller circle at P. OR (B) Prove that the lengths of tangents drawn from an external point to a circle are equal.	3
Q31.	(A) If we add 1 to the numerator and subtract 1 from the denominator, a fraction reduces to 1. It becomes 1/2 if we only add 1 to the denominator. What is the fraction? OR (B) For which value of 'k' will the following pair of line are equations have no solution ? $3x + y = 1$ $(2k-1)x + (k-1)y = 2k+1$	

SECTION – D
(Long Answers)

This section comprises of LA type questions of 5 marks each

Q. No.	Question	Marks																
Q32.	The distribution below gives the weights of 30 students of a class. Find the median weight of the students : <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Weight In kg</td> <td style="text-align: center;">40-45</td> <td style="text-align: center;">45-50</td> <td style="text-align: center;">50-55</td> <td style="text-align: center;">55-60</td> <td style="text-align: center;">60-65</td> <td style="text-align: center;">65-70</td> <td style="text-align: center;">70-75</td> </tr> <tr> <td style="text-align: center;">Number of Students</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">8</td> <td style="text-align: center;">6</td> <td style="text-align: center;">6</td> <td style="text-align: center;">3</td> <td style="text-align: center;">2</td> </tr> </table>	Weight In kg	40-45	45-50	50-55	55-60	60-65	65-70	70-75	Number of Students	2	3	8	6	6	3	2	5
Weight In kg	40-45	45-50	50-55	55-60	60-65	65-70	70-75											
Number of Students	2	3	8	6	6	3	2											
Q33.	Find the sum of first 51 terms of an A.P. whose second and third terms are 14 and 18, respectively.	5																

	OR	
	The first term of an A.P. is 5, the last term is 45 and the sum is 400. Find the number of terms and the common difference.	
Q34.	A tent is in the shape of a cylinder surmounted by a conical top. If the height and diameter of the cylindrical part are 2.1 m and 4 m respectively, and the slant height of the top is 2.8 m, find the area of the canvas used for making the tent. Also, find the cost of the canvas of the tent at the rate of Rs. 500 per m ² . (Note that the base of the tent will not be covered with canvas.)	5
Q35.	From the top of a 7 m high building, the angle of elevation of the top of a cable tower is 60° and the angle of depression of its foot is 45°. Determine the height of the tower. OR From the top of a building 50 m high, the angles of depression of the top and bottom of a tower are observed to be 30° and 60°. Find the height of the tower and distance between the building and the tower. (Take $\sqrt{3} = 1.73$)	5

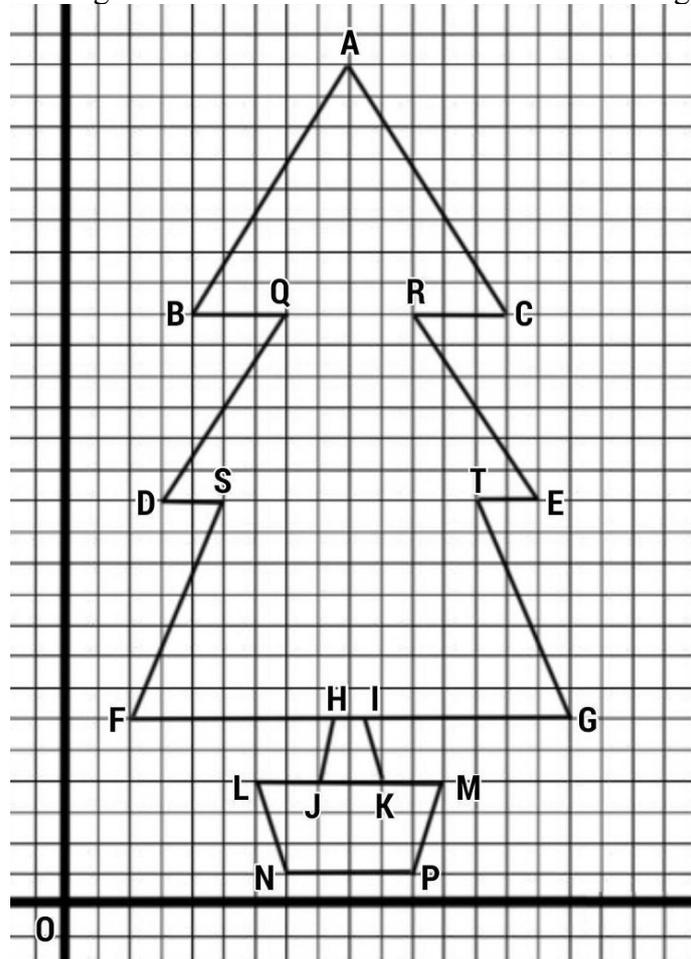
SECTION - E		
(Case-study Based Questions)		
This section comprises of 3 case-study based questions of 4 marks each with three sub-parts.		
Q. No.	Question	Marks
Q36.	<p>Meenal was trying to find the height of tower near his house. She is using the properties of similar triangles. The height of Meenal's house is 20 m. When Meenal's house casts a shadow of 10m long on the ground, at the same time, tower casts a shadow of 50 m long and Arun's house casts a shadow of 20 m long on the ground as shown below.</p> <div style="text-align: center;"> <p style="text-align: center;">Arun's house Tower Meenal's house</p> <p style="text-align: center;">20 m 50 m 10 m</p> </div> <p>Based on the above information, answer the following questions.</p> <p>(i) What is the height of tower?</p> <p>(ii) What will be the length of shadow of tower when Meenal's house casts a shadow of 15 m?</p> <p>(iii) (a) If tower casts a shadow of 40 m, then find the length of shadow of Arun's house.</p>	(1+1+2)

OR

(b) If tower casts a shadow of 40 m, then what will be the length of shadow of Meenal's house?

Q37.

A design of Christmas tree is shown in the following graph:



Now answer the following questions:

- (i) What are the coordinates of the point G .
- (ii) Find the mid-point of AB.
- (iii) (a) Find the length of FS.

OR

- (b) Find the distance between N and M .

(1+1+2)

Q38.

Khushi wants to organize her birthday party. Being health conscious, she decided to serve only fruits in her birthday party. She bought 36 apples and 60 bananas and decided to distribute fruits equally among all.

(1+1+2)



Based on the above information, answer the following questions :

- (i) How many guests Khushi can invite at the most ?
- (ii) How many apples and bananas will each guest get ?
- (iii) (a) If Khushi decides to add 42 mangoes, how many guests Khushi can invite at the most ?

OR

If Khushi decides to add 42 mangoes, how many apples, mangoes and bananas will each guest get ?

Pre-board Examination(2025-26)

पूर्व- बोर्ड परीक्षा (2025-26)

Class: X

Subject and Subject code: Social Science(087)

कक्षा: X

विषय और विषय कोड: सामाजिक विज्ञान (087)

Time:03hrs

समय: 03 घंटे

Max.marks:80

अधिकतम अंक: 80

General Instructions:

सामान्य निर्देश:

1. There are 38 questions in the Question paper. All questions are compulsory.
1. प्रश्न पत्र में 38 प्रश्न हैं। सभी प्रश्न अनिवार्य हैं।
2. The question paper has Four Sections - A-History, B-Geography C- Political Science, and D-Economics.
2. प्रश्नपत्र में चार खंड हैं - A: इतिहास, B: भूगोल, C: राजनीति विज्ञान और D: अर्थशास्त्र।
3. Each Section is of 20 Marks and has MCQs, VSA, SA, LAs and CBQ.
3. प्रत्येक खंड 20 अंकों का है और इसमें MCQs, VSA, SA, LA और CBQ प्रश्न शामिल हैं।
4. Very Short Answer Type Questions (VSA), carry 2 marks each. Answers to each question should not exceed 40 words.
4. अति लघु उत्तरीय प्रश्न (VSA) 2 अंकों के होंगे। प्रत्येक उत्तर 40 शब्दों से अधिक नहीं होना चाहिए।
5. Short Answer Type Questions (SA), carry 3 marks each. Answers to each question should not exceed 60 words.
5. लघु उत्तरीय प्रश्न (SA) 3 अंकों के होंगे। प्रत्येक उत्तर 60 शब्दों से अधिक नहीं होना चाहिए।
6. Long answer type questions (LA), carry 5 marks each. Answers to each question should not exceed 120 words.
6. दीर्घ उत्तरीय प्रश्न (LA) 5 अंकों के होंगे। प्रत्येक उत्तर 120 शब्दों से अधिक नहीं होना चाहिए।
7. There are case based questions (CBQ) with three sub questions and are of 4 marks each. Answers to each question should not exceed 100 words.
7. केस आधारित प्रश्न (CBQ) 4 अंकों के होंगे जिनमें तीन उप प्रश्न होंगे। प्रत्येक उत्तर 100 शब्दों से अधिक नहीं होना चाहिए।
8. The map-based questions, carry 5 marks with two parts- Q9. In Section A-History (2 marks) and Q19. In Section B-Geography (3 marks)
8. मानचित्र आधारित प्रश्न 5 अंकों के होंगे जिनमें दो भाग होंगे - प्रश्न 9 (इतिहास खंड - 2 अंक) और प्रश्न 19 (भूगोल खंड - 3 अंक)।
9. There is no overall choice in the question paper. However, an internal choice has been provided in few questions. Only one of the choices in such questions must be attempted.
9. प्रश्न पत्र में कोई समग्र विकल्प नहीं है। हालाँकि, कुछ प्रश्नों में आंतरिक विकल्प दिया गया है। केवल एक विकल्प का प्रयास करना होगा।
10. In addition to this, NOTE that a separate question has been provided for Visually Impaired candidates in lieu of questions having visual inputs, map etc. Such questions are to be attempted by Visually Impaired candidates only.

10. दृष्टि बाधित विद्यार्थियों के लिए विशेष प्रश्न प्रदान किए गए हैं जो दृश्य इनपुट और मानचित्र आदि के स्थान पर दिए गए हैं।

	<p style="text-align: center;">SECTION A HISTORY(20MARKS) खंड - A :</p> <p>इतिहास (20 अंक)</p>	
--	--	--

1	<p>Study the picture and answer the question that follows: चित्र का अध्ययन करें और निम्नलिखित प्रश्न का उत्तर दें: Identify the two leaders with Mahatma Gandhi. (a) Maulana Azad and Bal Gangadhar Tilak (b) Nehru and Jinnah (c) Shaukat Ali and Gopal Krishna Gokhale (d) Jawaharlal Nehru and Maulana Azad महात्मा गांधी के साथ दो नेताओं की पहचान करें। (a) मौलाना आज़ाद और बाल गंगाधर तिलक (b) नेहरू और जिन्ना (c) शौकत अली और गोपाल कृष्ण गोखले (d) जवाहरलाल नेहरू और मौलाना आज़ाद</p> 	1
2	<p>Under the presidency of Jawaharlal Nehru, the Lahore Congress formalised the demand of “Purna Swaraj” of full independence for India in _____ (a) December 1929 (b) January 1929 (c) December 1930 (d) December 1928 जवाहरलाल नेहरू की अध्यक्षता में लाहौर कांग्रेस ने भारत के लिए पूर्ण स्वतंत्रता की “पूर्णस्वराज” की मांग को औपचारिक रूप कब दिया था? (a) दिसंबर 1929 (b) जनवरी 1929 (c) दिसंबर 1930 (d) दिसंबर 1928</p>	1
3	<p>Arrange the following in the correct sequence. (i) Unification of Germany (ii) Unification of Italy (iii) Greek struggle for independence began (iv) Fall of Napoleon (a) (iv)-(iii)-(ii)-(i) (b) (ii)-(iv)-(iii)-(i) (c) (iii)-(iv)-(ii)-(i) (d) (i)-(iii)-(ii)-(iv) निम्नलिखित को सही क्रम में व्यवस्थित करें। (i) जर्मनी का एकीकरण (ii) इटली का एकीकरण (iii) स्वतंत्रता के लिए ग्रीक संघर्ष शुरू हुआ (iv) नेपोलियन का पतन (a) (iv)-(iii)-(ii)-(i) (b) (ii)-(iv)-(iii)-(i) (c) (iii)-(iv)-(ii)-(i) (d) (i)-(iii)-(ii)-(iv)</p>	1
4	<p>The following questions consist of two statements- Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below: (a) Both A and R are true and R is the correct explanation of A. (b) Both A and R are true but R is not the correct explanation of A (c) A is correct but R is wrong. (d) A is wrong but R is correct. निम्नलिखित प्रश्नों में दो कथन हैं - अभिकथन (A) और कारण (R)।</p>	1

	<p>नीचे दिए गए उचित विकल्प का चयन करके इन प्रश्नों के उत्तर दीजिए:</p> <p>(a) A और R दोनों सत्य हैं और R, A का सही स्पष्टीकरण है। (b) A और R दोनों सत्य हैं लेकिन R, A का सही स्पष्टीकरण नहीं है। (c) A सही है लेकिन R गलत है। (d) A गलत है लेकिन R सही है।</p> <p>Assertion (A): The Printing press came to Goa with French missionaries in the mid-16th century. Reason (R): The Jesuit Priests learnt Konkani and printed several tracts.</p> <p>अभिकथन (A) : 16 वीं शताब्दी के मध्य में फ्रांसीसी मिशनरियों के साथ प्रिंटिंग प्रेस गोवा आई थी। कारण (R) : जे सुइट पादरियों ने कोंकणी सीखी और कई ट्रैक्ट छापे।</p>	
5A	<p>Explain how the silk routes are a good example of Pre-modern trade between different countries of the world? रेशम मार्ग किस प्रकार विश्व के विभिन्न देशों के बीच पूर्व-आधुनिक व्यापार का एक अच्छा उदाहरण हैं? व्याख्या करें।</p>	2
	OR अथवा	
5B	<p>Give two examples of different types of global exchanges which took place before the seventeenth century, choosing one example from Asia and one from the Americas सत्रहवीं शताब्दी से पूर्व हुए विभिन्न प्रकार के वैश्विक आदान-प्रदान के दो उदाहरण दीजिए, जिनमें से एक उदाहरण एशिया से और एक उदाहरण अमेरिका से दिया गया।</p>	
6A	<p>Explain how print culture assisted the growth of nationalism in India. बताएं कि कैसे मुद्रण संस्कृति ने भारत में राष्ट्रवाद के विकास में सहायता की।</p>	3
	OR अथवा	
6B	<p>Enumerate some drawbacks of manuscripts. पांडुलिपियों की कुछ कमियां गिनाइए।</p>	
7A	<p>How did ideas of national unity in early nineteenth century Europe ally to the ideology of liberalism? Explain. उन्नीसवीं सदी की शुरुआत में यूरोप में राष्ट्रीय एकता के विचार उदारवाद की विचारधारा से कैसे जुड़े? व्याख्या करें।</p>	5
	OR अथवा	
7B	<p>"In the administrative field Napoleon had incorporated revolutionary principles." Explain the statement. "नेपोलियन ने प्रशासनिक क्षेत्र में क्रांतिकारी सिद्धांतों का समावेश किया था।" कथन की व्याख्या कीजिए।</p>	
8	<p style="text-align: center;">CASE BASED QUESTION</p> <p>Read the given text and answer the following questions:(1+1+2)</p> <p style="text-align: center;">Nationalism in India</p> <p>Modern nationalism in Europe come to be associated with the formation of nation-states. It also meant a change in people's understanding of who they were and what defined their identity and sense of belonging. New symbols and icons, new songs and ideas forged new links and redefined the boundaries of communities. In most countries the making of this new national identity was a long process. How did this consciousness emerge in India?</p>	4

In India and as in many other colonies, the growth of modern nationalism is intimately connected to the anti-colonial movement. People began discovering their unity in the process of their struggle with colonialism. The sense of being oppressed under colonialism provided a shared bond that tied many different groups together. But each class and group felt the effects of colonialism differently, their experiences were varied and their notions of freedom were not always the same. The Congress under Mahatma Gandhi tried to forge these groups together within one movement. But the unity did not emerge without conflict.

Q. 1. What was people's understanding of nation?

Q. 2. How was the growth of modern nationalism intimately connected to the anti-colonial movement?

Q. 3. How did people in India develop a sense of collective belonging? Explain.

केस आधारित प्रश्न:

भारत में राष्ट्रवाद

यूरोप में आधुनिक राष्ट्रवाद राष्ट्र-राज्यों के निर्माण से जुड़ा हुआ है। इसका मतलब यह भी था कि लोगों की समझ में बदलाव आया कि वे कौन थे और उनकी पहचान और अपनेपन की भावना क्या परिभाषित करती है। नए प्रतीकों और प्रतीकों, नए गीतों और विचारों ने नए संबंध बनाए और समुदायों की सीमाओं को फिर से परिभाषित किया। अधिकांश देशों में इस नई राष्ट्रीय पहचान का निर्माण एक लंबी प्रक्रिया थी। भारत में यह चेतना कैसे उत्पन्न हुई? भारत में और कई अन्य उपनिवेशों की तरह, आधुनिक राष्ट्रवाद का विकास उपनिवेशवाद विरोधी आंदोलन से गहराई से जुड़ा हुआ है। लोगों ने उपनिवेशवाद के साथ अपने संघर्ष की प्रक्रिया में अपनी एकता की खोज शुरू कर दी। उपनिवेशवाद के तहत उत्पीड़ित होने की भावना ने एक साझा बंधन प्रदान किया जिसने कई अलग-अलग समूहों को एक साथ बांध दिया। लेकिन प्रत्येक वर्ग और समूह ने उपनिवेशवाद के प्रभावों को अलग-अलग तरह से महसूस किया, उनके अनुभव अलग-अलग थे और स्वतंत्रता के बारे में उनकी धारणाएँ हमेशा एक जैसी नहीं थीं। महात्मा गांधी के नेतृत्व में कांग्रेस ने इन समूहों को एक आंदोलन के तहत एकजुट करने की कोशिश की। लेकिन एकता संघर्ष के बिना सामने नहीं आई।

प्रश्न 1. राष्ट्र के बारे में लोगों की समझ क्या थी?

प्रश्न 2. आधुनिक राष्ट्रवाद का विकास उपनिवेशवाद विरोधी आंदोलन से किस प्रकार घनिष्ठ रूप से जुड़ा था?

प्रश्न 3. भारत में लोगों में सामूहिक अपनेपन की भावना कैसे विकसित हुई? व्याख्या करना।

MAP SKILL BASED QUESTION (2MARKS)

मानचित्र आधारित प्रश्न (2 अंक):

9 (a) Two places i and ii are marked on the outline political map of India. Identify these places with the help of following information and write their correct names on the lines marked near them.

(i) The place where the Indian National Congress was held in 1927.

(ii) The place associated with the Jallianwala Bagh Incident.

(अ) भारत के रूपरेखा राजनीतिक मानचित्र पर दो स्थान I और II अंकित हैं।

निम्नलिखित जानकारी की सहायता से इन स्थानों को पहचानें और उनके पास अंकित रेखाओं पर उनके सही नाम लिखें।

(i) वह स्थान जहाँ 1927 में भारतीय राष्ट्रीय कांग्रेस का आयोजन हुआ था।

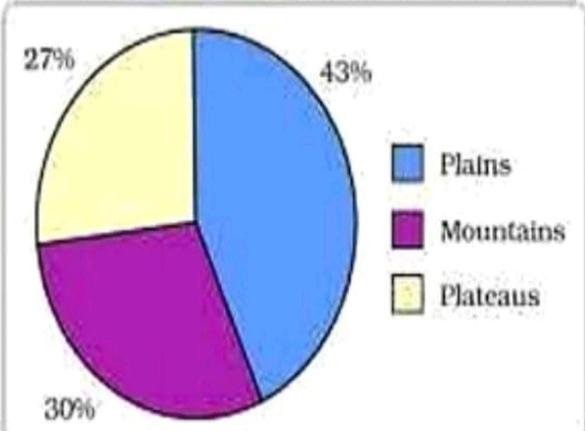
(ii) जलियांवाला बाग कांड से जुड़ा स्थान।

Note: The following questions is for **Visually Impaired Candidates** only in lieu of Q.No.9

(i) Name the place where the Indian National Congress was held in 1927.

(ii) Name the place associated with the Jallianwala Bagh Incident.

2

	<p>नोट: निम्नलिखित प्रश्न केवल दृष्टिबाधित विद्यार्थियों के लिए प्रश्न संख्या 9 के स्थान पर है। (i) वह स्थान जहाँ 1927 में भारतीय राष्ट्रीय कांग्रेस का आयोजन हुआ था। (ii) जलियांवाला बाग कांड से जुड़ा स्थान।</p>									
	<p>SECTION B GEOGRAPHY (20 MARKS) खंड - B : भूगोल (20 अंक)</p>									
10	<p>When was the first international Earth summit held in? (a) 1991 (b) 1990 (c) 1992 (d) 1993</p> <p>पहला अंतर्राष्ट्रीय पृथ्वी शिखर सम्मेलन कब आयोजित किया गया था? (a) 1991 (b) 1990 (c) 1992 (d) 1993</p>	1								
11	<p>Which of the following conservation strategy do not directly involve community participation? (a) Joint forest management (b) Chipko movement (c) Beej bachao andolan (d) Demarcation of wildlife sanctuaries</p> <p>निम्नलिखित में से किस संरक्षण रणनीति में सीधे तौर पर सामुदायिक भागीदारी शामिल नहीं है? (a) संयुक्त वन प्रबंधन (b) चिपको आंदोलन (c) बीज बचाओ आंदोलन (d) वन्यजीव अभयारण्यों का सीमांकन</p>	1								
12	<p>Choose the correctly matched pair about the main crop growing states of India from the following options: (a) Cotton – Meghalaya (b) Rubber – Kerala (c) Wheat – Uttar Pradesh (d) Both (b) and (c)</p> <p>निम्नलिखित विकल्पों में से भारत के मुख्य फसल उत्पादक राज्यों के बारे में सही मिलान वाली जोड़ी चुनें: (a) कपास - मेघालय (b) रबर - केरला (c) गेहूँ - उत्तरप्रदेश (d) (b) और (c) दोनों</p>	1								
13	<p>Interpret the following pie diagram and choose the correct option for the following question? What is the significance of 43 percent land under plains?</p> <p>(A) It provides facilities for agriculture and industry. (B) It provides facilities for tourism. (C) It ensures perennial flow of some river. (D) It possesses rich reserve of minerals, fossil fuels and forests.</p> <div style="text-align: right;">  <table border="1" style="margin-left: auto; margin-right: 0;"> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Plains</td> <td>43%</td> </tr> <tr> <td>Mountains</td> <td>30%</td> </tr> <tr> <td>Plateaus</td> <td>27%</td> </tr> </tbody> </table> </div> <p>निम्नलिखित पाई आरेख की व्याख्या कीजिये और निम्नलिखित प्रश्न के लिए सही विकल्प चुनिए? मैदानी इलाकों के तहत 43 प्रतिशत भूमि का क्या महत्व है? A. यह कृषि और उद्योग के लिए सुविधाएँ प्रदान करता है। B. यह पर्यटन के लिए सुविधाएँ प्रदान करता है।</p>	Category	Percentage	Plains	43%	Mountains	30%	Plateaus	27%	1
Category	Percentage									
Plains	43%									
Mountains	30%									
Plateaus	27%									

	<p>C. यह किसी नदी का बारहमासी प्रवाह सुनिश्चित करता है। D. इसमें खनिजों, जीवाश्म ईंधनों और वनों का समृद्ध भंडार है</p>	
14	<p>Two statements are given below. They are Assertion (A) and Reason (R). Read both the statements and choose the correct option. Assertion (A): The famous 'Chipko Movement' in the Himalayas successfully resisted deforestation in several areas. Reason (R): Through this, community afforestation campaign with indigenous species was made enormously successful. Options: (A) Both (A) and (R) are true, but (R) is not the correct explanation of (A). (B) Both (A) and (R) are true and (R) is the correct explanation of (A). (C) (A) is true, but (R) is false. (D) (A) is false, but (R) is true.</p> <p>नीचे दो कथन दिए गए हैं। वे अभिकथन (A) और कारण (R) हैं। दोनों कथनों को पढ़िए और सही विकल्प का चयन कीजिए। कथन (A): हिमालय में प्रसिद्ध 'चिपको आंदोलन' ने कई क्षेत्रों में वनों की कटाई का सफलतापूर्वक विरोध किया। कारण (R): इसके माध्यम से, स्वदेशी प्रजातियों के साथ सामुदायिक वनीकरण अभियान को काफी सफल ब विकल्प: (A) दोनों (A) और (R) सत्य हैं, लेकिन (R) (A) का सही स्पष्टीकरण नहीं है। (B) दोनों (A) और (R) सत्य हैं और (R) (A) का सही स्पष्टीकरण है। (C) (A) सत्य है, लेकिन (R) गलत है। (D) (A) गलत है, लेकिन (R) सत्य है।</p>	1
15	<p>Conservation of forest is a key to the survival of human mankind. Some of the practices undertaken in India in this direction is Joint Forest Management. Identify the correct information related to Joint Forest Management.</p> <ol style="list-style-type: none"> 1. It involves local communities in the management and restoration of degraded forests. 2. The programme has been in formal existence since 1980. 3. Jharkhand passed the first resolution for Joint Forest Management. 4. The members of local village communities are entitled to intermediary benefits like non timber forest producers. <p>Options: (A) 1 and 2 only (B) 2 and 3 only (C) 1 and 4 only (D) 3 and 4 only</p> <p>वन का संरक्षण मानव जाति के अस्तित्व की कुंजी है। इस दिशा में भारत में की गई कुछ पद्धतियाँ संयुक्त वन प्रबंधन हैं। संयुक्त वन प्रबंधन से संबंधित सही जानकारी की पहचान करें।</p> <ol style="list-style-type: none"> 1. यह स्थानीय समुदायों को निम्नीकृत वनों के प्रबंधन और बहाली में शामिल करता है। 2. यह कार्यक्रम 1980 से औपचारिक अस्तित्व में है। 	1

	<p>3. झारखंड ने संयुक्त वन प्रबंधन के लिए पहला प्रस्ताव पारित किया।</p> <p>4. स्थानीय ग्राम समुदायों के सदस्य गैर लकड़ी वन उत्पादकों की तरह मध्यस्थ लाभ के हकदार हैं।</p> <p>विकल्प:</p> <p>(A) केवल 1 और 2</p> <p>(B) केवल 2 और 3</p> <p>(C) केवल 1 और 4</p> <p>(D) केवल 3 और 4</p>	
16	<p>Name one important beverage crop and specify the geographical conditions required for its growth.</p> <p>एक महत्वपूर्ण पेय फसल का नाम बताइए और इसकी वृद्धि के लिए आवश्यक भौगोलिक परिस्थितियों को स्पष्ट कीजिए।</p>	2
17A	<p>Describe the importance of manufacturing industries as a backbone of economic development of the country.</p> <p>देश के आर्थिक विकास की रीढ़ के रूप में विनिर्माण उद्योगों के महत्व को स्पष्ट कीजिए।</p>	5
	OR अथवा	
17B	<p>Discuss the steps to be taken to minimise environmental degradation by industries.</p> <p>उद्योगों द्वारा पर्यावरण क्षरण को कम करने के लिए उठाए जाने वाले कदमों की विवेचना कीजिए।</p>	
18	<p style="text-align: center;">CASE BASED QUESTION</p> <p>Read the given text and answer the following questions: (1+1+2)</p> <p style="text-align: center;">RAINWATER HARVESTING</p> <p>Many thought that given the disadvantages and rising resistance against the multi-purpose projects, water harvesting system was a viable alternative, both socio-economically and environmentally. In ancient India, along with the sophisticated hydraulic structures, there existed an extraordinary tradition of water harvesting system. People had in-depth knowledge of rainfall regimes and soil types and developed wide ranging techniques to harvest rainwater, groundwater, river water and flood water in keeping with the local ecological conditions and their water needs. In hill and mountainous regions, people built diversion channels like the 'guls' or 'kuls' of the Western Himalayas for agriculture. 'Rooftop rainwater harvesting' was commonly practised to store drinking water, particularly in Rajasthan. In the flood plains of Bengal, people developed inundation channels to irrigate their fields. In arid and semi-arid regions, agricultural fields were converted into rain fed storage structures that allowed the water to stand and moisten the soil like the 'Khadins' in Jaisalmer and 'Johads' in other parts of Rajasthan.</p> <p>Q. 1. Why is water harvesting system a viable alternative?</p> <p>Q. 2. Describe the process of 'rooftop rainwater harvesting'?</p> <p>Q. 3. Mention any two methods adopted by ancient India for water conservation.</p> <p style="text-align: center;">जलसंरक्षण</p> <p>कई लोगों ने सोचा कि बहु उद्देश्यीय परियोजनाओं के नुकसान और उनके खिलाफ बढ़ते प्रतिरोध को देखते हुए, जलसंचयन प्रणाली सामाजिक-आर्थिक और पर्यावरणीय दोनों ही दृष्टि से एक व्यवहार्य विकल्प है। प्राचीन भारत में, परिष्कृत हाइड्रोलिक संरचनाओं के साथ-साथ, जलसंचयन प्रणाली की एक असाधारण परंपरा मौजूद थी। लोगों को वर्षा व्यवस्था और मिट्टी के प्रकारों का महान ज्ञान था और उन्होंने स्थानीय पारिस्थितिक स्थितियों और उनकी जल आवश्यकताओं को ध्यान में रखते हुए वर्षा जल, भूजल, नदी जल और बाढ़ जलसंचयन के</p>	4

	<p>लिए व्यापक तकनीकें विकसित कीं। पहाड़ी और पर्वतीय क्षेत्रों में, लोगों ने कृषि के लिए पश्चिमी हिमालय के 'गुल' या 'कुल' जैसे डायवर्जन चैनल बनाए। विशेषकर राजस्थान में पीने के पानी को संग्रहित करने के लिए आमतौर पर 'छत पर वर्षा जलसंचयन' का अभ्यास किया जाता था। बंगाल के बाढ़ के मैदानों में, लोगों ने अपने खेतों की सिंचाई के लिए जल प्लावन चैनल विकसित किए। शुष्क और अर्ध-शुष्क क्षेत्रों में, कृषि क्षेत्रों को वर्षा आधारित भंडारण संरचनाओं में परिवर्तित कर दिया गया, जिससे पानी जमा हो सके और मिट्टी को नम किया जा सके, जैसे जैसलमेर में 'खडीन' और राजस्थान के अन्य हिस्सों में 'जोहड़'।</p> <p>प्रश्न 1. जलसंचयन प्रणाली एक व्यवहार्य विकल्प क्यों है? प्रश्न 2. 'छत पर वर्षा जलसंचयन' की प्रक्रिया का वर्णन करें? प्रश्न 3. जलसंरक्षण के लिए प्राचीन भारत द्वारा अपनाई गई किन्हीं दो विधियों का उल्लेख करें।</p>	
	MAP SKILL BASED QUESTIONS (3 MARKS) मानचित्र कौशल आधारित प्रश्न (3 अंक)	
19	<p>On the same outline map of India locate and label the following with suitable symbols:</p> <p>(i) Salal Dam. (ii) Bhilai –Iron and steel Plant. (iii)Neta ji subhashchandrabose International airport</p> <p>भारत के दिए गए रूपरेखा मानचित्र पर निम्नलिखित को दर्शाएँ।</p> <p>(i) सलाल बांध। (ii) भिलाई-लोहा और इस्पात संयंत्र। (iii)नेताजी सुभाष चंद्रबोस अंतर्राष्ट्रीय हवाईअड्डा</p> <p>Note: The following questions is for Visually Impaired Candidates only in lieu of Q.No.9</p> <p>(i) Name the place where Salal Dam is situated (ii)Name the place where Bhilai – Iron and steel Plant.is situated (iii)Name the place where Neta ji subhashchandrabose International airport</p> <p>नोट:निम्नलिखित प्रश्न केवल दृष्टिबाधित विद्यार्थियों के लिए प्रश्न संख्या 9 के स्थान पर है।</p> <p>i) वह स्थान जहाँ सलाल बांध स्थित है। ii) भिलाई - लोहा और इस्पात संयंत्र। से जुड़ा स्थान। iii)वह स्थान जहाँ नेताजी सुभाष चंद्रबोस अंतर्राष्ट्रीय हवाईअड्डा स्थित है</p>	3
	SECTION C POLITICAL SCIENCE (20 MARKS) खंड C राजनीति विज्ञान (20 अंक)	
20	<p>Under which of the following is power shared in the 'community government' of Belgium?</p> <p>(a) Different social groups (b)Different organs of Government (c) Central and State Government (d) State and Community government</p> <p>बेल्जियम की 'सामुदायिकसरकार' में सत्ता का बंटवारा निम्नलिखित में से किस के द्वारा किया जाता है?</p> <p>(a) विभिन्न सामाजिक समूह (b) सरकार के विभिन्न अंग (c) केंद्र और राज्य सरकार (d) राज्य और सामुदायिक सरकार</p>	1

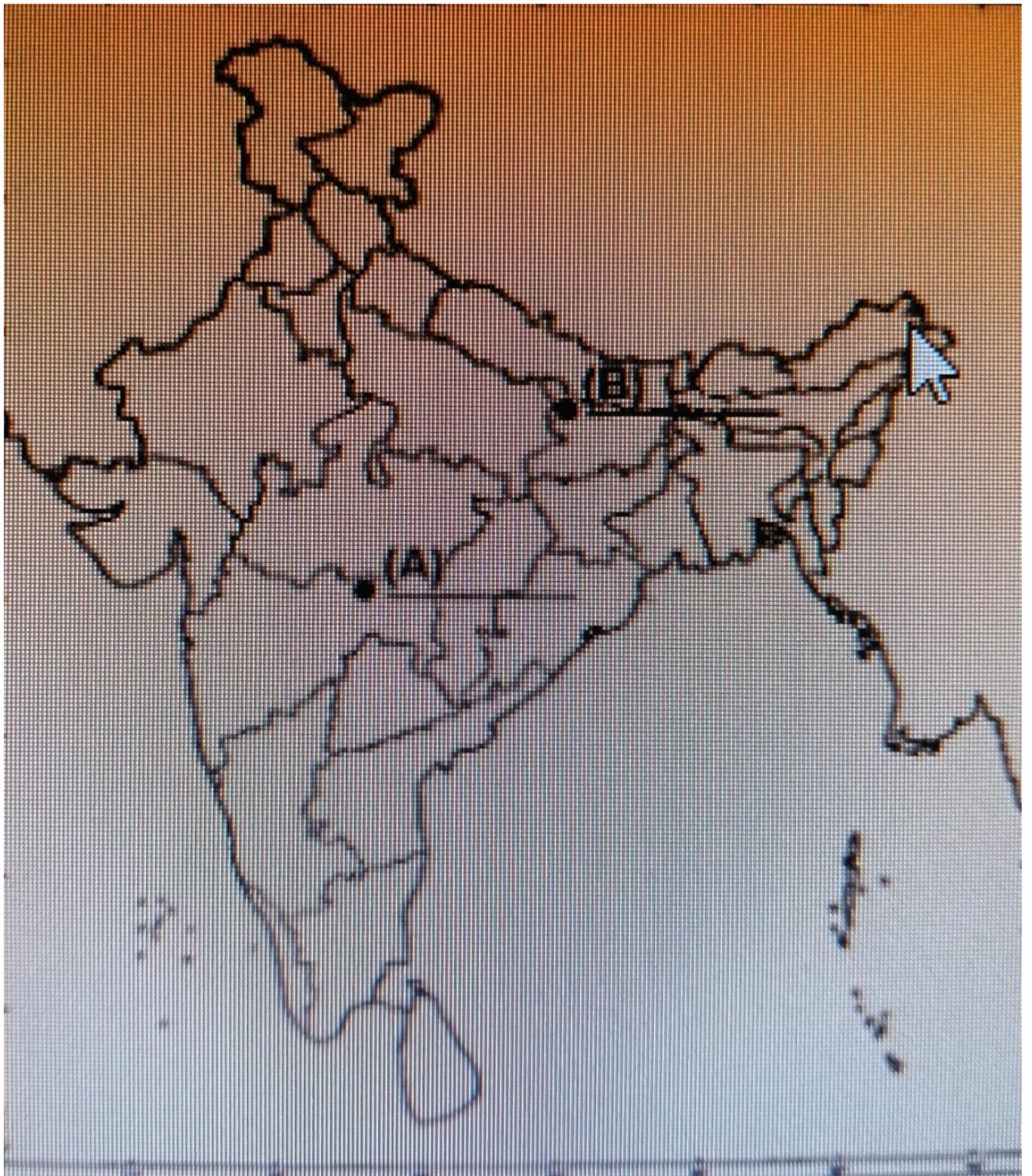
21	Which linguistic group was in majority in the capital city of Belgium brussels? (a) Dutch (b) French (c) German (d) Spanish बेल्जियम की राजधानी ब्रुसेल्स में कौन सा भाषाई समूह बहुसंख्यक था? (a) डच (b) फ्रेंच (c) जर्मन (d) स्पेनिश	1
22	When power is taken away from Central and State government and given to local government, it is called: (a) Centralisation (b) Decentralisation (c) Panchayat Samiti (d) None of these जब केंद्र और राज्य सरकार से शक्ति छीनकर स्थानीय सरकार को दे दी जाती है, तो उसे कहते हैं: (a) केंद्रीकरण (b) विकेंद्रीकरण (c) पंचायत समिति (d) इनमें से कोई नहीं	1
23	Which among the following statements about India's constitution is wrong? It (a) Prohibits discrimination on grounds of religion. (b) Gives official status to one religion. (c) Provides to all individuals freedom to profess any religion. (d) Ensures equalities of citizens within religious communities. भारत के संविधान के बारे में निम्नलिखित में से कौन सा कथन गलत है? यह (a) धर्म के आधार पर भेदभाव को रोकता है। (b) एक धर्म को आधिकारिक दर्जा देता है। (c) सभी व्यक्तियों को किसी भी धर्म को मानने की स्वतंत्रता प्रदान करता है। (d) धार्मिक समुदायों के भीतर नागरिकों की समानता सुनिश्चित करता है।	1
24	Define "coming together federalism"? "कमिंग टुगेदर फेडरलिस्म (संघवाद)" को परिभाषित कीजिये	2
25	Explain the main reason for the alienation of Tamils in Sri Lanka. श्रीलंका में तमिलों के अलगाव का मुख्य कारण बताइये।	2
26	Describe the three-fold distribution of legislative powers between the Union Government and state government. केंद्र सरकार और राज्य सरकार के बीच विधायी शक्तियों के त्रिविध वितरण का वर्णन करें।	3
27A	Explain the role of political parties in a democracy. लोकतंत्र में राजनीतिक दलों की भूमिका स्पष्ट करें।	5
OR अथवा		
27B	"Political parties today face several challenges that impact the democratic functioning." Justify this statement. "राजनीतिक दलों को आज कई चुनौतियों का सामना करना पड़ता है जो लोकतांत्रिक कामकाज को प्रभावित करती हैं।" इस कथन का औचित्य सिद्ध कीजिए।	
28	CASE BASED QUESTION Read the given text and answer the following questions.(1+2+1) Two different sets of reasons can be given in favour of power sharing. Let us call the first set of reasons prudential and the second moral. While prudential reasons stress that power sharing will bring out better outcomes, moral reasons emphasizes the very act of power sharing as valuable. 28.1 Why power sharing is essential for democracy? 1 28.2 Differentiate between Community government in Belgium and Majoritarian government in Srilanka. 2	4

	<p>28.3 What is the moral reason for Power sharing. 1</p> <p style="text-align: center;">केस आधारित प्रश्न</p> <p>दिए गए पाठ को पढ़ें और निम्नलिखित प्रश्नों के उत्तर दें: (1+2+1)</p> <p>"सत्ता के बंटवारे के पक्ष में दो अलग-अलग तरह के कारण दिए जा सकते हैं। चलिए पहले समूह के कारणों को युक्तिपरक और दूसरे को नैतिक कहते हैं। जहाँ युक्तिपरक कारण इस बात पर जोर देते हैं कि सत्ता के बंटवारे से बेहतर परिणाम मिलेंगे, वहीं नैतिक कारण सत्ता के बंटवारे के कार्य को ही मूल्यवान मानते हैं। →</p> <p>28.1 लोकतंत्र के लिए सत्ता का बंटवारा क्यों आवश्यक है? (1)</p> <p>28.2 बेल्जियम में सामुदायिक सरकार और श्रीलंका में बहुसंख्यकवादी सरकार के बीच अंतर स्पष्ट कीजिए। (2)</p> <p>28.3 सत्ता के बंटवारे का नैतिक कारण क्या है? (1)</p>	
	<p>SECTION – D</p> <p>ECONOMICS (20 MARKS)</p> <p>खंड D</p> <p>अर्थशास्त्र (20 अंक)</p>	
29	<p>Employment figures of a country are based on data collected from 5-yearly surveys on employment and unemployment. Which organization conducts this survey?</p> <p>(a) NSSO - National Sample Survey Organization. (b) NREGA 2005- National Rural Employment Guarantee Act,2005 (c) ILO – International Labour Organization (d) Census of India</p> <p>किसी देश के रोजगार के आंकड़े रोजगार और बेरोजगारी पर 5-वर्षीय सर्वेक्षणों से एकत्र आंकड़ों पर आधारित होते हैं। कौन सा संगठन यह सर्वेक्षण करता है?</p> <p>(a) NSSO - राष्ट्रीय नमूना सर्वेक्षण संगठन। (b) नरेगा 2005- राष्ट्रीय ग्रामीण रोजगार गारंटी अधिनियम, 2005 (c) ILO - अंतर्राष्ट्रीय श्रम संगठन (d) भारत की जनगणना।</p>	1
30	<p>Which of the following is an example of Collateral?</p> <p>(a) Livestocks (b) Land (c) Deposits with bank (d) All of these</p> <p>निम्नलिखित में से कौन सा संपार्श्विक का उदाहरण है?</p> <p>(a) पशुधन (b) भूमि (c) बैंकमेंजमा (d) येसभी</p>	1
31	<p>The most common route for investments by MNCs in countries around the world is to:</p> <p>(a) By making close relations with local companies. (b) Buy existing local companies. (c) Form partnerships with local companies. (d) All of these.</p> <p>दुनियाभर के देशों में बहुराष्ट्रीय कंपनियों द्वारा निवेश के लिए सबसे आम तरीका है:</p> <p>(क) स्थानीय कंपनियों के साथ नजदीकी संबंध बना कर। (ख) मौजूदा स्थानीय कंपनियों को खरीदना। (ग) स्थानीय कंपनियों के साथ साझेदारी बनाना। (घ) उपरोक्त सभी। .</p>	1
32	<p>An agreement in which the lender supplies the borrower with money goods or services in return for the promise of further payment refers to:</p> <p>(a) Credit (b) Deposit (c) Account (d) Collateral</p> <p>एक समझौता जिसमें ऋणदाता उधारकर्ता को आगे भुगतान के वादे के बदले में धन, सामानया सेवाएं प्रदान करता है, वह निम्न को संदर्भित करता है:</p>	1

	(a) ऋण	(b) जमा	(c) खाता	(d) संपार्श्विक	
33	<p>Study the given picture. The work done in the picture comes under which one of the following sectors of the economy?</p> <p>(A) Primary (B) Secondary (C) Tertiary (D) Quaternary</p> <p>निम्नलिखित चित्र का अध्ययन करें। चित्र में किया गया कार्य अर्थव्यवस्था के निम्नलिखित क्षेत्रों में से किसके अंतर्गत आता है?</p> <p>(A) प्राथमिक (B) द्वितीयक (C) तृतीयक (D) चतुर्थातुक</p>				1
					
34	<p>Which of the following is an example of Trade Barrier?</p> <p>(a) Tax on imports (b) Custom duty (c) Transit Permits (d) All of these</p> <p>निम्नलिखित में से कौन सा व्यापार अवरोध का उदाहरण है?</p> <p>(a) आयात पर कर (b) सीमा शुल्क (c) पारगमन परमिट (d) उपरोक्त सभी</p>				1
35	<p>Explain the meaning of H.D.I. Explain three components of measuring H.D.I.</p> <p>H.D.I. का अर्थ स्पष्ट करें। H.D.I. मापने के तीन घटकों की व्याख्या करें।</p>				3
36	<p>“There is a need for protection and support for the workers in the unorganised sector.” Evaluate this statement.</p> <p>असंगठित क्षेत्र के श्रमिकों के लिए सुरक्षा और समर्थन की आवश्यकता है।” इस कथन का मूल्यांकन करें।</p>				3
37	<p>Why do you think MGNREGA 2005 is referred to as 'Right to Work'?</p> <p>मनरेगा 2005 को 'काम का अधिकार' क्यों कहा जाता है?</p>				3
38A	<p>What is the basic idea behind the Self-Help Groups (SHGs) for the poor? Explain in your own words.</p> <p>गरीबों के लिए स्वयं सहायता समूहों (SHG) के पीछे मूल विचार क्या है? अपने शब्दों में समझाइए।</p>				5
OR अथवा					
38B	<p>Saroj works in an office. Suman is her house help. State any five points of difference in the working conditions of Saroj and Suman.</p> <p>सरोज एक कार्यालय में काम करती है। सुमन उसकी घरेलू सहायिका है। सरोज और सुमन की काम करने की स्थितियों में कोई पांच अंतर बताइए।</p>				

Map for Question No. 9 (Section A) and Question No. 19 (Section B)

प्रश्न संख्या 9 (खंड ए) और प्रश्न संख्या 19 (खंड बी) के लिए मानचित्र



PRE-BOARD EXAMINATION (2025-26)
CLASS - X
MATHEMATICS (STANDARD) – Code No. 041

Maximum marks:80

Time:3 hours

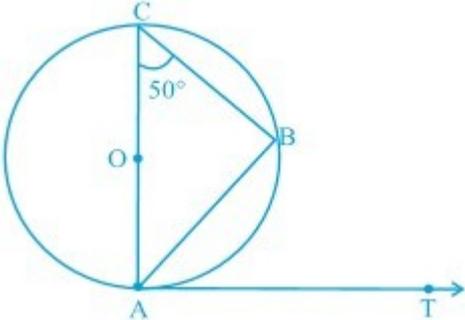
General Instructions: -

Read the following instructions carefully and follow them: -

1. This question paper contains 38 questions. All Questions are compulsory.
2. This Question Paper is divided into 5 Sections A, B, C, D and E.
3. In Section A, Question numbers 1-18 are multiple choice questions (MCQs) and question no.19 and 20 are Assertion- Reason based questions of 1 mark each.
4. In Section B, Question numbers 21-25 are very short answer (VSA) type questions, carrying 02 marks each.
5. In Section C, Question numbers 26-31 are short answer (SA) type questions, carrying 03 marks each.
6. In Section D, Question numbers 32-35 are long answer (LA) type questions, carrying 05 marks each.
7. In Section E, Question numbers 36-38 are case study-based questions carrying 4 marks each with sub parts of the values of 1, 1 and 2 marks each respectively.
8. There is no overall choice. However, an internal choice in 2 questions of Section B, 2 questions of Section C and 2 questions of Section D has been provided. An internal choice has been provided in all the 2 marks questions of Section E.
9. Draw neat and clean figures wherever required. Take $\pi = 227$ wherever required if not stated.
10. Use of calculators is not allowed.

SECTION – A (Multiple Choice Questions)		
Each MCQ of 1mark, has four options with only one correct option, choose the correct option		
Q.No.	Question	Marks
Q1.	If two positive integers a and b are written as $a= 4x^3y^2$ and $b=12xy^3$ where x,y are prime numbers, then HCF(a ,b) is A) xy B) 4xy C) x^3y^3 D) $4xy^2$	1
Q2.	The sum of exponents of prime factors in the prime-factorisation of 196 is A)3 B)4	1

	<p>C) 5</p> <p>D) 6</p>	
Q3.	<p>The quadratic equations $x^2 - 4x + k = 0$ has distinct real roots if</p> <p>A) $k=4$</p> <p>B) $k>4$</p> <p>C) $k= 16$</p> <p>D) $k< 4$</p>	1
Q4.	<p>Value(s) of k for which the quadratic equation $2x^2 - kx + k=0$ has equal roots is</p> <p>A) 0 only</p> <p>B) 4</p> <p>C) 8 only</p> <p>D) 0 and 8</p>	1
Q5.	<p>Distance between the points A(0,6) and B(0,-2) is</p> <p>A) 7</p> <p>B) 5</p> <p>C) 8</p> <p>D) -8</p>	1
Q6.	<p>If the point (x,y) is equidistant from the points A(5,1) and B(-1,5) then</p> <p>A) $2x=3y$</p> <p>B) $3x=2y$</p> <p>C) $x=y$</p> <p>D) $4x=5y$</p>	1
Q7.	<p>D and E are the midpoints of side AB and AC of $\triangle ABC$, respectively and $BC = 6$ cm. If $DE \parallel BC$, then the length of DE (in cm) is</p> <p>(A) 2.5 (B) 3 (C) 5 (D) 6</p>	1
Q8.	<p>A card is selected at random from a well shuffled deck of 52 cards. The probability of its being a face card is</p> <p>A) $3/26$ B) $3/13$ C) $2/13$ D) $1/2$</p>	1

<p>Q9.</p>	<p>If the area of circle is numerically equal to twice its circumference, then the diameter of the circle is</p> <p>A) 4 units</p> <p>B) 6 units</p> <p>C) 8 units</p> <p>D) 12 units</p>	<p>1</p>
<p>Q10.</p>	<p>In the following figure, AB is a chord of the circle and AOC is its diameter such that $\angle ACB = 50^\circ$. If AT is the tangent to the circle at the point A, then $\angle BAT$ is equal to.</p>  <p>A) 65°</p> <p>B) 60°</p> <p>C) 50°</p> <p>D) 40°</p>	<p>1</p>
<p>Q11.</p>	<p>TP and TQ are the two tangents to a circle with center O so that angle $\angle POQ = 130^\circ$. Find $\angle PTQ$.</p> <p>A) 50°</p> <p>B) 70°</p> <p>C) 80°</p> <p>D) none of these</p>	<p>1</p>
<p>Q12.</p>	<p>If the perimeter of a circle is equal to that of a square, then the ratio of their areas is</p> <p>A) 22:7</p> <p>B) 14:11</p>	<p>1</p>

	<p>C) 7:22</p> <p>D) 11:14</p>													
Q13.	<p>$\sin 2A = 2 \sin A$ is true when $A =$</p> <p>A) 0°</p> <p>B) 30°</p> <p>C) 45°</p> <p>D) 60°</p>	1												
Q14.	<p>$(\sec A + \tan A)(1 - \sin A) =$</p> <p>A) $\sec A$</p> <p>B) $\sin A$</p> <p>C) $\cos A$</p> <p>D) $\cot A$</p>	1												
Q15.	<p>The heights (in cm) of 10 students are: 150, 155, 160, 165, 170, 170, 175, 180, 185, 190. What is the median height of the students?</p> <p>A) 165 cm B) 170 cm C) 172.5 cm D) 175 cm</p>	1												
Q16.	<p>If the height of a pole is equal to the length of its shadow, then the angle of elevation of the sun is</p> <p>A) 30° B) 45° C) 60° D) 90°</p>	1												
Q17.	<p>Consider the following frequency distribution.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tbody> <tr> <td>Class</td> <td>0-5</td> <td>5-10</td> <td>10-15</td> <td>15-20</td> <td>20-25</td> </tr> <tr> <td>Frequency</td> <td>10</td> <td>15</td> <td>12</td> <td>20</td> <td>9</td> </tr> </tbody> </table> <p>The lower limit of modal class is</p> <p>A) 15 B) 20 C) 10 D) 5</p>	Class	0-5	5-10	10-15	15-20	20-25	Frequency	10	15	12	20	9	1
Class	0-5	5-10	10-15	15-20	20-25									
Frequency	10	15	12	20	9									
Q18.	<p>A cube of 6cm side is cut into number of cubes each of side 2cm. The number of cubes will be</p>	1												

	<p>A) 9</p> <p>B) 18</p> <p>C) 27</p> <p>D) 36</p>	
--	--	--

Each of the following questions contains two statements i.e., ASSERTION and REASON, and has following four choices.

- A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).
- B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).
- C) Assertion (A) is true but reason (R) is false.
- D) Assertion (A) is false but reason (R) is true.

Only one of which is the correct answer.

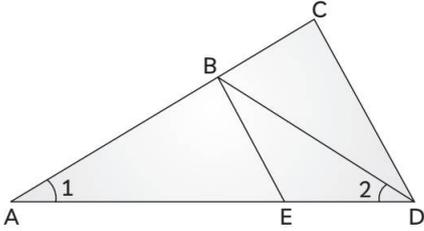
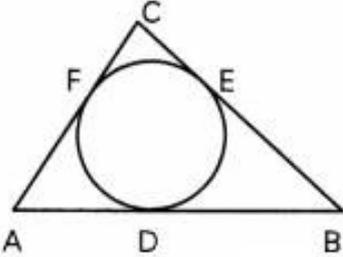
Q19.	<p>ASSERTION (A): The HCF of two numbers is 9 and their LCM is 2016. If the one number is 54, then the other number is 336.</p> <p>REASON (R): Relation between numbers and their HCF and LCM is product of two numbers $a, b = \text{HCF}(a,b) \times \text{LCM}(a,b)$.</p>	1
Q20.	<p>ASSERTION (A): -5, -5/2, 0, 5/2 is an Arithmetic progression.</p> <p>REASON (R): The terms of an Arithmetic Progression cannot have both positive and negative rational numbers.</p>	1

SECTION – B

(Very Short Answers)

This section comprises of VSA of 2 marks each

Q. No.	Question	Marks
Q21.	<p>For what values of k will the following pair of linear equations have infinitely many solutions ?</p> <p>$Kx + 3y - (k-3) = 0$ and $12x + ky - k = 0$</p> <p>OR</p> <p>If $217x + 131y = 913$, $131x + 217y = 827$, then find the value of x and y.</p>	2
Q22.	Find the value of x if $2 \operatorname{cosec}^2 30^\circ + x \sin^2 60^\circ - 3/4 \tan^2 30^\circ = 10$	2
Q23.	In the given figure below, $\frac{AD}{AE} = \frac{AC}{BD}$ and $\angle 1 = \angle 2$. Show that $\triangle BAE \sim \triangle CAD$.	2

		
Q24.	<p>A circle is inscribed in a ΔABC having $AB=10\text{cm}$, $BC=12\text{cm}$ and $CA=8\text{cm}$ and touching these sides at D, E, F respectively. Find the lengths of AD, BE and CF.</p> 	2
Q25.	<p>The length of the minute hand of a clock is 14 cm. Find the area swept by the minute hand in 5 minutes.</p> <p>OR</p> <p>The radii of two circles are 8cm and 6cm respectively. Find the diameter of the circle having area equal to the sum of the areas of the two circles.</p>	2

SECTION – C
(Short Answers)

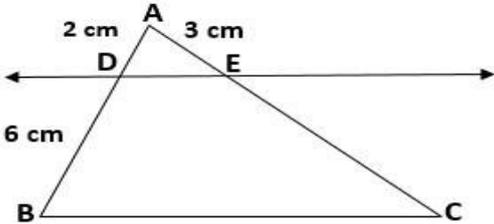
This section comprises of SA of 3 marks each

Q. No.	Question	Marks
Q26.	Given that $\sqrt{3}$ is irrational, prove that $2+5\sqrt{3}$ is irrational.	3
Q27.	Find the zeroes of the quadratic polynomial $6x^2 - 7x - 3$ and verify the relationship between the zeroes and the coefficients of the polynomial.	3
Q28.	Which term of the AP : 3, 15, 27, 39, . . . will be 132 more than its 54th term?	3
Q29.	Prove that $(\sin A + \operatorname{cosec} A)^2 + (\cos A + \sec A)^2 = 7 + \tan^2 A + \cot^2 A$ OR	3

	Prove that $\frac{\cos A}{1+\sin A} + \frac{1+\sin A}{\cos A} = 2 \sec A$	
Q30.	All the black face cards are removed from a pack of 52 playing cards. The remaining cards are well shuffled and then a card is drawn at random. Find the probability of getting (i) face card (ii) red card (iii) black card. OR Two coins are tossed simultaneously. What is the probability of getting (i) At least one head? (ii) At most one tail? (iii) A head and a tail?	3
Q31.	Prove that a parallelogram circumscribing a circle is a rhombus.	3

SECTION – D
(Long Answers)

This section comprises of LA type questions of 5 marks each

Q. No.	Question	Marks
Q32.	A man wished to give Rs. 12 to each person and found that he fell short of Rs. 6 when he wanted to give to all the persons present. He, therefore, distributed Rs. 9 to each person and found that Rs. 9 were leftover. How much money did he have and how many persons were there? OR A father's age is three times the sum of the ages of his children. After 5 years, his age will be two times the sum of their ages. Find the present age of the father.	5
Q33.	Prove that a line drawn parallel to one side of a triangle divides the other two sides in the same ratio. In the figure, find EC if $AD/DB = AE/EC$ using the above theorem. 	5
Q34.	A tent is in the shape of a cylinder surmounted by a conical top. If the height and diameter of the cylindrical part are 2.1 m and 4 m respectively, and the slant height of the top is 2.8 m, find the area of the canvas used for making the tent. Also, find the cost of the canvas of the tent at the rate of Rs. 500 per m^2 . OR A rectangular metal block has length 15 cm, breadth 10 cm and height 5 cm. From	5

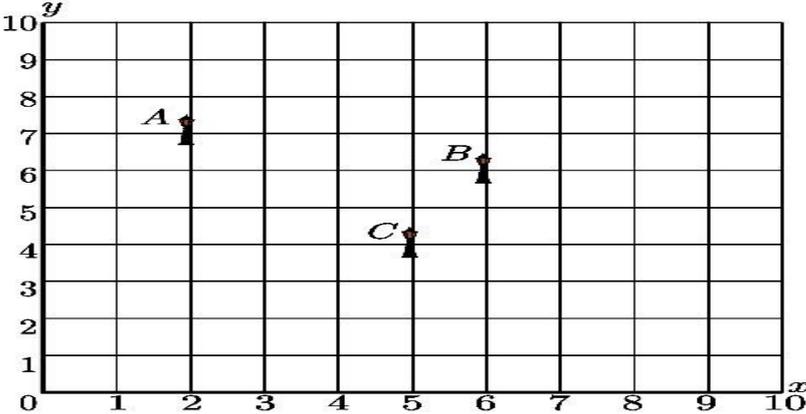
	this block, a circular hole of diameter 7 cm is drilled out. Find: (i) the volume of the remaining solid (ii) the surface area of the remaining solid.																					
Q35.	<p>The distribution below gives the marks of 100 students of a class, if the median marks are 24, find the frequencies f_1 and f_2</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Marks</td> <td>0-5</td> <td>5-10</td> <td>10-15</td> <td>15-20</td> </tr> <tr> <td>No. of students</td> <td>4</td> <td>6</td> <td>10</td> <td>f_1</td> </tr> <tr> <td>Marks</td> <td>20-25</td> <td>25-30</td> <td>30-35</td> <td>35-40</td> </tr> <tr> <td>No. of students</td> <td>25</td> <td>f_2</td> <td>18</td> <td>5</td> </tr> </table>	Marks	0-5	5-10	10-15	15-20	No. of students	4	6	10	f_1	Marks	20-25	25-30	30-35	35-40	No. of students	25	f_2	18	5	5
Marks	0-5	5-10	10-15	15-20																		
No. of students	4	6	10	f_1																		
Marks	20-25	25-30	30-35	35-40																		
No. of students	25	f_2	18	5																		

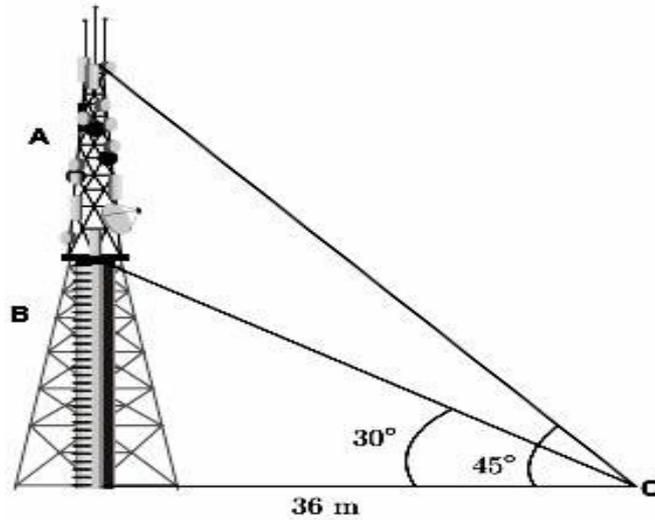
SECTION - E

(Case-study Based Questions)

This section comprises of 3 case-study based questions of 4 marks each with three sub-parts.

Q. No.	Question	Marks
Q36.	<p>. CASE STUDY -1</p> <p>In the month of April to June 2022, the exports of passenger cars from India increased by 26% in the corresponding quarter of 2021–22, as per a report. A car manufacturing company planned to produce 1800 cars in 4th year and 2600 cars in 8th year. Assuming that the production increases uniformly by a fixed number every year.</p> 	<p>(1)</p> <p>(1)</p> <p>(2)</p>
	<p>Based on the above information answer the following questions.</p> <p>(i) Find the production in the 1st year.</p> <p>(ii) Find the production in the 12th year.</p> <p>(iii) Find the total production in first 10 years.</p>	

	<p>OR</p> <p>(iii) In how many years will the total production reach 31200 cars?</p>	(2)
<p>Q37.</p>	<p>CASE STUDY -2</p> <p>Resident Welfare Association (RWA) of a Gulmohar Society in Delhi have installed three electric poles A, B and C in a society's common park. Despite these three poles, some parts of the park are still in dark. So, RWA decides to have one more electric pole D in the park. The park can be modelled as a coordinate system given below.</p>  <p>On the basis of the above information, answer the following questions:</p> <ul style="list-style-type: none"> (i) What is the position of the pole C? (ii) What is the distance of the pole B from the corner O of the park? (iii) Find the position of the fourth pole D so that four points A, B, C and D form a parallelogram. <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> (iii) What is the distance between poles A and C? 	<p>(1)</p> <p>(1)</p> <p>(2)</p> <p>(2)</p>
<p>Q38.</p>	<p>CASE STUDY -3</p> <p>Radio towers are used for transmitting a range of communication services including radio and television. The tower will either act as an antenna itself or support one or more antennas on its structure, including micro wave dishes. They are among the tallest human-made structures. There are 2 main types: guyed and self-supporting structures. On a similar concept, a radio station tower was built in two sections A and B. Tower is supported by wires from a point O. Distance between the base of the tower and point O is 36m. From point O, the angle of elevation of the top of section B is 30° and the angle of elevation of the top of section A is 45°.</p>	



- (i) What is the height of the section B ?
- (ii) What is the height of the section A?
- (iii) What is the length of the wire structure from the point O to the top of section A?

(1)
(1)
(2)

(OR)

- (iii) What is the length of the wire structure from the point O to the top of section B?

(2)



Pre-Board Examination (2025-26)

Class:10

Subject & Subject Code: Science Theory, (086)

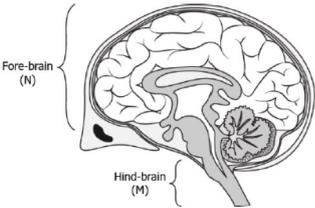
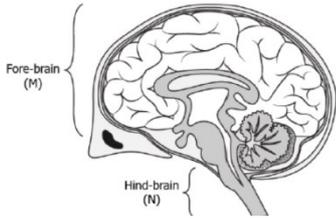
Time:3 hours

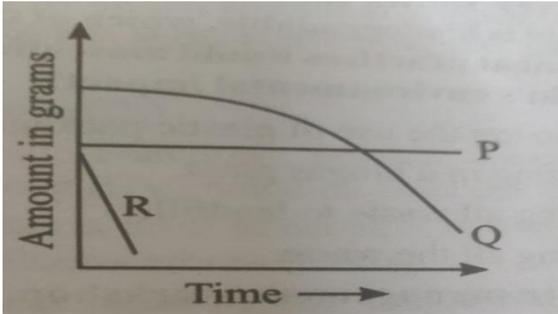
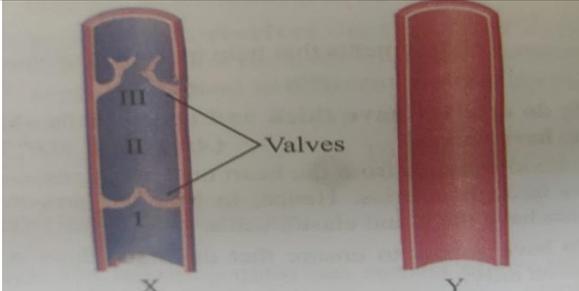
Max. Marks: 80

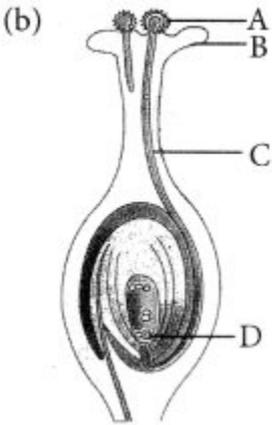
Instructions:

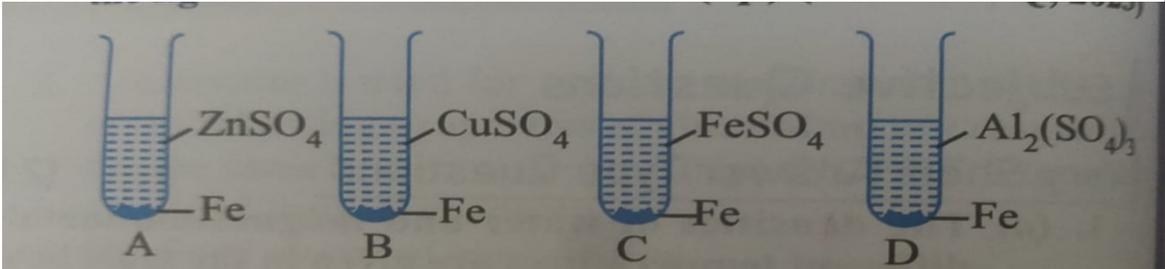
(i) This question paper consists of 39 questions in 3 sections. Section A is Biology; Section B is Chemistry and Section C is Physics.

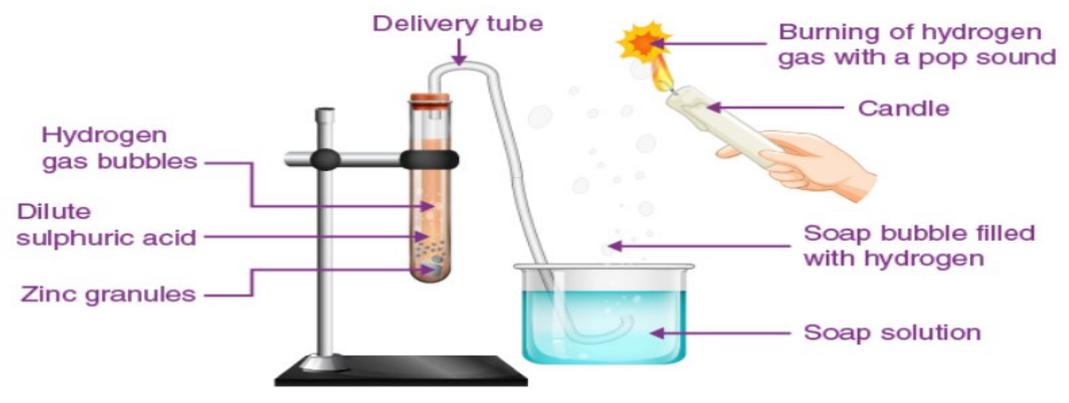
(ii) All questions are compulsory. However, an internal choice is provided in some questions. A student is expected to attempt only one of these questions.

Q. No.	SECTION-A	Marks
1	Which of the following events in the mouth cavity will be affected if salivary amylase is lacking in the saliva? A. Starch breaking down into sugars. B. Proteins breaking down into amino acids. C. Absorption of vitamins. D. Fats breaking down into fatty acids and glycerol.	1
2	Height of a plant is regulated by: A. D.N.A which is directly influenced by growth hormone B. Genes which regulate the protein directly C. Growth hormones under the influence of the enzyme coded by a gene. D. Growth hormones directly under the influence of gene	1
3	The part where the exchange of gases occurs during respiration is: A. Lungs and larynx B. Alveoli and throat C. Throat and lungs D. Alveoli and capillaries	1
4	What is the ratio of average amount of energy absorbed by producers to the average amount of energy absorbed by the primary consumers? A. 1:2 B. 2:1 C. 1:10 D. 10:1	1
5	Which of the following option illustrates the location of the centre that controls the feelings associated with hunger (M) and the centre that allows a person to walk in a straight line (N)? A.  B.  C.  D. 	1

6	<p>Samaira conducted an experiment where she buried three different types of solid wastes (P, Q and R) under the soil in a pot to study their decomposition rates. The graph below shows the decomposition rates of these wastes over time.</p>  <p>Select the option that correctly identifies P, Q and R:</p> <table border="1"> <thead> <tr> <th>Option</th> <th>P</th> <th>Q</th> <th>R</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Banana peel</td> <td>Plastic bottle</td> <td>Paper cup</td> </tr> <tr> <td>B</td> <td>Polythene bag</td> <td>Bone</td> <td>Orange peel</td> </tr> <tr> <td>C</td> <td>Apple core</td> <td>Metal Can</td> <td>Cardboard</td> </tr> <tr> <td>D</td> <td>Rubber cover</td> <td>Vegetable scrap</td> <td>Wooden stick</td> </tr> </tbody> </table>	Option	P	Q	R	A	Banana peel	Plastic bottle	Paper cup	B	Polythene bag	Bone	Orange peel	C	Apple core	Metal Can	Cardboard	D	Rubber cover	Vegetable scrap	Wooden stick	1
Option	P	Q	R																			
A	Banana peel	Plastic bottle	Paper cup																			
B	Polythene bag	Bone	Orange peel																			
C	Apple core	Metal Can	Cardboard																			
D	Rubber cover	Vegetable scrap	Wooden stick																			
7	<p>A monohybrid cross was conducted between one variety of pea plants having pods that are full (FF) and another having pods that are constricted (ff). What is the percentage of heterozygous offsprings in F1 generation? A. 0% B. 25% C. 75% D.100%</p>	1																				
	<p>Following questions consist of two statements – Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below: A. Both ‘A’ and ‘R’ are true, and ‘R’ is correct explanation of the Assertion. B. Both ‘A’ and ‘R’ are true, but ‘R’ is not correct explanation of the Assertion. C. ‘A’ is true, but ‘R’ is false. D. ‘A’ is false, but ‘R’ is true.</p>																					
8	<p>Assertion (A): The trophic level in a food chain should be limited. Reason (R): There is a loss of energy as we go from one trophic level to the next, this limits the number of trophic levels in a food chain.</p>	1																				
9	<p>Assertion(A): The effect of auxin hormone on the growth of root is exactly opposite to that on a stem. Reason (R): Auxin hormone increases the rate of growth in root and decreases the rate of growth in stem.</p>	1																				
10	<p>All plants give out oxygen during the day and carbon dioxide during night. Do you agree with this statement? Give reason.</p>	2																				
11	<p>Students to attempt either option A or B. A. “The improvement in our lifestyle has led to the generation of large amount of waste material.” List two reasons to justify this statement. OR B. If all the waste generated is biodegradable, will this have an impact on the environment? Justify you answer.</p>	2																				
12	<p>Given below are two different types of blood vessels X and Y. Based on your observation, answer the following questions: (i) Identify X and Y (ii) In which direction does blood flow</p>		2																			

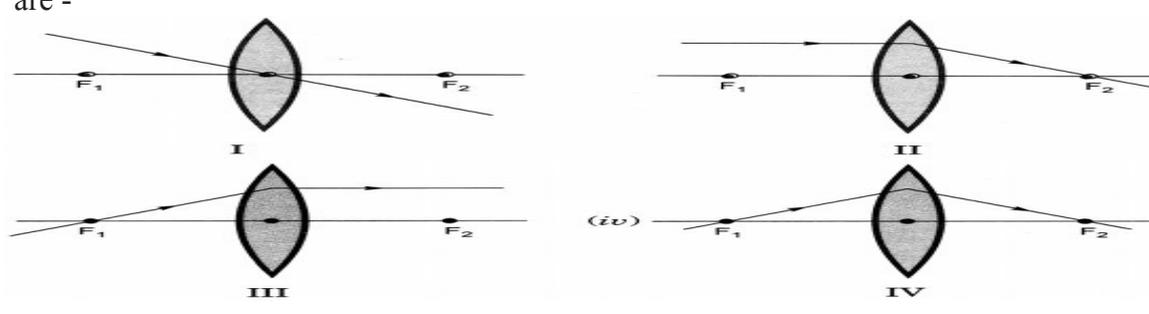
	in X? Do you think blood will flow from I to II? Give reason for your answer.	
13	<p>A 10 year old child was observed to be significantly shorter than other children of the same age. After a medical examination it was found that the child had deficiency of a particular hormone. Considering this scenario:</p> <p>(i) Identify the hormone likely to be deficient and the gland responsible for its secretion.</p> <p>(ii) Name the disorder caused due to over and under secretion of this hormone.</p>	3
14	<p>A green stemmed rose plant denoted by GG and a brown stemmed rose plant denoted by gg are allowed to undergo a cross with each other.</p> <p>A. List your observation regarding:</p> <p>(i) Colour of stem in F1 progeny.</p> <p>(ii) Percentage of brown stemmed plants in F2 progeny if F1 plants are self-pollinated.</p> <p>(iii) Ratio of GG and Gg in F2 progeny.</p> <p>B. Based on the findings of this cross, what conclusion can be drawn?</p>	3
15	<p>The human digestive system is a tube running from mouth to anus. Its main function is to break-down complex molecules present in the food which cannot be absorbed as such into smaller molecules. These molecules are absorbed across the walls of the tube, and the absorbed food reaches each and every cell of the body where it is utilised for obtaining energy.</p> <p>Based on the understanding of the concept answer the following questions:</p> <p>(i). Name the glands present in the buccal cavity and write the components of food on which the secretion of these glands act upon.</p> <p>(ii) Two organs have a sphincter muscle at their exit. Name them.</p> <p>Attempt either option (iii) or (iv)</p> <p>(iii) What will happen if:</p> <p>(a) mucus is not secreted by the gastric glands.</p> <p>(b) Villi are absent in the small intestine.</p> <p style="text-align: center;">OR</p> <p>(iv). "Bile juice does not contain any enzyme, yet it has important roles in digestion." Justify the statement.</p>	4
16	<p>Attempt either option A or B.</p> <p>A. (a) List two reasons for the appearance of variations among the progeny formed by sexual reproduction.</p> <p>(b)</p> <div style="display: flex; align-items: flex-start;"> <div style="margin-right: 20px;">  </div> <div> <p>(i) Name the part marked A in the diagram.</p> <p>(ii) How does A reach part B?</p> <p>(iii) State the importance of the part C.</p> <p>(iv) What happens to the part marked D after fertilisation is over?</p> </div> </div> <p style="text-align: center;">OR</p>	5

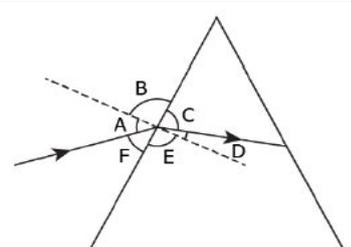
	D. 'A' is false, but 'R' is true.	
24	<p>Assertion (A): Following are the members of a homologous series: CH_3OH, $\text{CH}_3\text{CH}_2\text{OH}$, $\text{CH}_3\text{CH}_2\text{CH}_2\text{OH}$</p> <p>Reason (R): A series of compounds with same functional group but differing by $-\text{CH}_2$ unit is called a homologous series.</p>	1
25	<p>Sakshi was comparing the reactivity of different metals for her science project. She added iron filings in four test tubes A, B, C and D containing aqueous solution of ZnSO_4, CuSO_4, FeSO_4 and $\text{Al}_2(\text{SO}_4)_3$ respectively as shown in the figure:</p>  <p>(i) In which test tube will she observe the reaction to be most vigorous? Give reason for her observation. (ii) Write a balanced equation of the reaction.</p>	2
26	<p>(i) Oxide of an element X is used intensively in the cement industry. This element is present in bones also. On treatment with water, it forms a solution which turns red litmus blue. Identify X and write the chemical reactions involved. (ii) What happens when hydrogen gas is passed over the heated CuO? Mention the colour change and write chemical equation for the reaction.</p>	3
27	<p>Attempt either option A or B.</p> <p>A. Metal X is found in nature as its sulphide XS. It is used in the galvanisation of iron articles.</p> <p>(i) Identify the metal X. (ii) How will you convert this sulphide ore into the metal? Explain with equations.</p> <p style="text-align: center;">OR</p> <p>B. In the formation of a compound between two atoms P and R, P loses two electrons and R gains one electron.</p> <p>(i) What is the nature of the bond between P and R? (ii) Give the formula of the compound formed between P and R. (iii) Draw the electron-dot structure of MgCl_2 (iv) NaCl has high melting point. Why?</p>	3

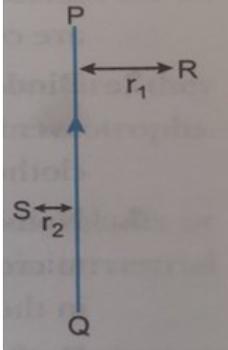
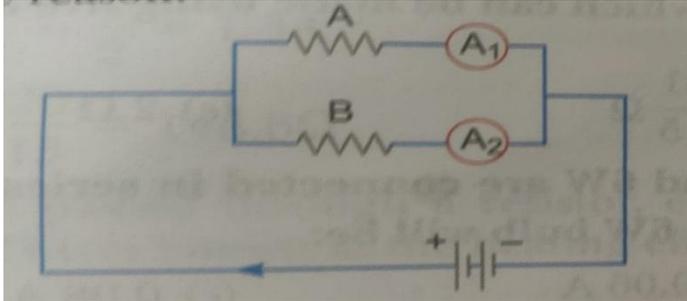
28	<p>The preparation of hydrogen gas is shown in the figure given below. What would happen if the following changes are made?</p>  <p>(i). Instead of dilute sulphuric acid, dilute hydrochloric acid is taken (ii) In place of zinc, copper turnings are taken. Give reason for your answer. <u>Attempt either option (iii) or (iv)</u> (iii). In place of zinc granules, the same amount of zinc dust is taken in the test tube. OR (iv). Sodium hydroxide is taken in place of dilute sulphuric acid, and the tube is heated. Give equation for the reaction taking place.</p>	4
----	---	---

29	<p><u>Attempt either option A or B.</u> A. A carbon compound 'P' on heating with excess conc. H_2SO_4 forms another carbon compound 'Q' which on addition of hydrogen in the presence of nickel catalyst forms a saturated carbon compound 'R'. One molecule of 'R' on combustion, forms two molecules of carbon dioxide and three molecules of water. Identify P, Q and R and write chemical equations for the reactions involved. OR B. (i) The molecular formula of two carbon compounds X and Y are C_4H_8 and C_5H_{12} respectively. Which one of the two is most likely to show addition reaction? Justify your answer. Also give the chemical equation to explain the process of addition reaction in this case. (ii) Write the structural formula of ethanol. What happens when it is heated with excess of conc. H_2SO_4 at 443 K? Write the chemical equation for the reaction stating the role of conc. H_2SO_4 in this reaction.</p>	5
----	---	---

SECTION-C

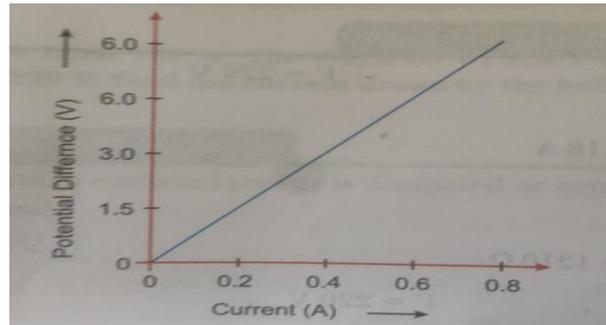
30	<p>The diagrams showing the correct path of the ray after passing through a convex lens are -</p>  <p>A. II and III only B. I and II only C. I, II and III D. I, II and IV</p>	1
----	---	---

31	<p>The image shows a light ray incident on a glass prism.</p>  <p style="text-align: center;">6</p>	6
----	---	---

36	<p>(i). A person suffering from presbyopia needs a bifocal lens. If he needs lenses of power +2.5D and -0.25D, which one of these two lenses is for the correction of distant vision and what is its focal length?</p> <p>(ii) With the help of a labelled diagram show the path followed by a narrow beam of mono-chromatic light is passed through a glass prism.</p>	3																
37	<p>PQ is the current carrying conductor in the plane of the paper as shown in the figure.</p> <p>(i) Find the directions of the magnetic fields produced by it at points R and S?</p> <p>(ii) Given $r_1 > r_2$, where will the strength of the magnetic field be larger? Give reason to support your answer.</p> <p>(iii) Explain the rule that is used to find the direction of the magnetic field for a straight current carrying conductor.</p>		3															
38	<p>Study the data given below showing the focal length of the three concave mirrors A, B and C and the respective distances of objects placed in front of the mirror.</p> <table border="1"> <thead> <tr> <th>Case</th> <th>Mirror</th> <th>Focal length (cm)</th> <th>Object distance (cm)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>A</td> <td>20</td> <td>45</td> </tr> <tr> <td>2</td> <td>B</td> <td>15</td> <td>30</td> </tr> <tr> <td>3</td> <td>C</td> <td>30</td> <td>20</td> </tr> </tbody> </table> <p>(i) In which of the above cases the mirror will form a diminished image of the object? Justify your answer.</p> <p>(ii). List two properties of the image formed by mirror in case 2. Attempt either option (iii) or (iv).</p> <p>(iii). What is the nature and size of the image formed by mirror C? Draw a ray diagram to justify your answer.</p> <p style="text-align: center;">OR</p> <p>(iv) An object is placed at a distance of 18cm from the pole of a concave mirror of focal length 12cm. Find the position of the image formed in this case.</p>	Case	Mirror	Focal length (cm)	Object distance (cm)	1	A	20	45	2	B	15	30	3	C	30	20	4
Case	Mirror	Focal length (cm)	Object distance (cm)															
1	A	20	45															
2	B	15	30															
3	C	30	20															
39	<p>Attempt either option A or B.</p> <p>A. (i) What is electrical resistivity?</p> <p>(ii) In a series electrical circuit comprising of a resistor having a metallic wire, the ammeter reads 5A. The reading of the ammeter decreases to half when the length of wire is doubled. Give reason.</p> <p>(ii) In the given circuit diagram, two resistance wires A and B are of same area of cross- section and same material but A is longer than B. Which ammeter A_1 or A_2 will indicate higher reading for current? Give reason.</p>  <p>(iii) State Joule's law of heating. Give its mathematical expression.</p> <p style="text-align: center;">OR</p>	5																

B. (i) State Ohm's law.

(ii) Name the physical quantity determined by the slope of V-I curve given in the diagram. Use this graph to find the value of this physical quantity in SI units.



(iii) A torch bulb is rated 5V and 500 mA. Calculate its: (a) power and (b) resistance.

पूर्व -परिषदीय परीक्षा-2025-26 / PRE-BOARD EXAM-(2025-26)

कक्षा X / CLASS – X

TIME: 2 Hrs

विषय: / SUBJECT: ARTIFICIAL INTELLIGENCE (417)

MM: 50

General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of 21 questions in two sections: Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. Out of the given (5 + 16 =) 21 questions, a candidate has to answer (5 + 10 =) 15 questions in the allotted (maximum) time of 2 hours.
5. All questions of a particular section must be attempted in the correct order.
6. SECTION A - OBJECTIVE TYPE QUESTIONS (24 MARKS):
7. i. This section has 05 questions.
8. ii. Marks allotted are mentioned against each question/part.
9. iii. There is no negative marking.
10. iv. Do as per the instructions given.
11. SECTION B – SUBJECTIVE TYPE QUESTIONS (26 MARKS):
12. i. This section has 16 questions.
13. ii. A candidate has to do 10 questions.
14. iii. Do as per the instructions given.
15. iv. Marks allotted are mentioned against each question/part.

SECTION A - OBJECTIVE TYPE QUESTIONS		
Q. No.	Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)	Marks
Q1.1	i. Which of the following is an example of self-management ? (a) Procrastinating tasks (b) Setting daily goals and achieving them (c) Ignoring deadlines (d) Avoiding teamwork	1
Q1.2	ii. In MS Word, pressing Ctrl + S is used to: (a) Save a file (b) Print a file (c) Close the window (d) Open a file	1
Q1.3	iii. Assertion (A): Entrepreneurs take calculated risks. Reason (R): Risk-taking is not an essential quality for entrepreneurship. Options: (a) Both A and R are correct, R explains A (b) Both A and R are correct but R does not explain A (c) A is correct but R is incorrect (d) A is incorrect but R is correct	1
Q1.4	iv. Identifying urgent vs. important work is an example of: (a) Organising (b) Prioritising (c) Tracking (d) Delegating	1
Q1.5	v. Which of the following is an environment-friendly practice ? (a) Excessive use of plastic bags	1

	(b) Using solar panels for electricity (c) Burning fossil fuels (d) Wasting water	
Q1.6	vi. While writing an email, clarity and conciseness reflect which communication skill? (a) Listening skills (b) Non-verbal skills (c) Writing skills (d) Speaking skills	1
Answer any 5 out of the given 6 questions on Employability Skills (1 x 5 = 5 marks)		
Q2.1	i. Assertion (A): AI is used in weather forecasting. Reason (R): AI cannot process large data sets. (a) Both A & R correct, R explains A (b) Both A & R correct, R not explanation (c) A correct, R incorrect (d) A incorrect, R correct	1
Q2.2	ii. Which of the following is an AI ethical concern ? (a) Using AI for medical diagnosis (b) AI replacing jobs (c) AI in fraud detection (d) AI in chatbots	1
Q2.3	iii. Which of the following best explains the role of Computer Vision in healthcare? (a) Detecting tumours from medical scans (b) Converting speech into text (c) Analysing purchase history for predictions (d) Translating languages	1
Q2.4	iv. In a neural network, the last layer is called: (a) Input layer (b) Hidden layer (c) Output layer (d) Middle layer	1
Q2.5	v. A word occurring very frequently in a dataset like “the”, “is” is called: (a) Rare word (b) Stop word (c) Unique word (d) Keyword	1
Q2.6	vi. Which of these is an example of structured data ? (a) Social media posts (b) Audio recordings (c) Excel spreadsheet of student marks (d) Images	1
Answer any 5 out of the given 6 questions on Employability Skills (1 x 5 = 5 marks)		
Q3.1	Which of the following is NOT AI ? (a) Alexa voice assistant (b) Autopilot in airplanes (c) Washing machine with timer (d) Google Translate	1
Q3.2	Features collected during Data Science are called: (a) Instances (b) Labels (c) Attributes (d) Files	1
Q3.3	Which of these is an AI application in healthcare? (a) Online ticket booking (b) X-ray image analysis (c) Weather prediction (d) E-commerce cart system	1
Q3.4	Identifying faces in CCTV footage is an example of: (a) Classification	1

	(b) Object Detection (c) Sentiment Analysis (d) Translation	
Q3.5	Which type of chatbot can learn and improve over time? (a) Scripted bot (b) Smart bot (c) Rule-based bot (d) Static bot	1
Q3.6	Precision & Recall are combined in: (a) Confusion matrix (b) Accuracy (c) F1 Score (d) ROC Curve	1
Answer any 5 out of the given 6 questions on Employability Skills (1 x 5 = 5 marks)		
Q4.1	AI systems that learn from large datasets using multiple layers are called: (a) Deep Learning (b) Data Mining (c) Machine Learning (d) Supervised Learning	1
Q4.2	Assertion (A): Training data is used to build the model. Reason (R): Testing data is used to check accuracy. Options: (a) Both A & R correct, R explains A (b) Both A & R correct, R not explanation (c) A correct, R incorrect (d) A incorrect, R correct	1
Q4.3	A colour image generally has how many channels? (a) 1 (b) 2 (c) 3 (d) 4	1
Q4.4	Which NLP application detects customer feedback mood? (a) Machine Translation (b) Sentiment Analysis (c) Speech Recognition (d) Text Summarisation	1
Q4.5	Using the same dataset for training and evaluation causes: (a) Bias (b) Overfitting (c) Underfitting (d) Normalisation	1
Q4.6	Data used for checking accuracy of a model is called: (a) Raw data (b) Testing data (c) Training data (d) Noise	1
Answer any 5 out of the given 6 questions on Employability Skills (1 x 5 = 5 marks)		
Q5.1	Google Translate belongs to which AI domain? (a) Computer Vision (b) Data Science (c) Natural Language Processing (d) Robotics	1
Q5.2	The smallest unit of an image is called: (a) Vector (b) Pixel (c) Byte (d) Frame	1
Q5.3	The grammar rules of a language define its:	1

	(a) Semantics	(b) Syntax	(c) Vocabulary	(d) Sentiment										
Q5.4	Creating word frequency from a text corpus is done using: (a) Tokenisation (b) Bag of Words (c) Stemming (d) Lemmatization				1									
Q5.5	In AI evaluation, high false positives in a medical test mean: (a) Healthy patient predicted sick (b) Sick patient predicted healthy (c) All predictions are correct (d) None of these				1									
Q5.6	Which of these is an AI application in banking ? (a) Chatbots for customer queries (b) Washing machine sensors (c) IoT smart lighting (d) Alarm clock				1									
SECTION B - SUBJECTIVE TYPE QUESTIONS														
Q. No.	Answer any 3 out of the given 5 questions on Employability Skills (2 x 3 = 6 marks) Answer each question in 20 - 30 words.				Marks									
Q6	Mention any two advantages of face-to-face communication?				2									
Q7	Why is time management important for students?				2									
Q8	What is phishing in computer terminology?				2									
Q9	Give two qualities of a successful entrepreneur?				2									
Q10	List two human practices that support sustainable development?				2									
Answer any 4 out of the given 6 questions in 20 - 30 words each (2 x 4 = 8 marks)														
Q11	Why do social media apps collect user data?				2									
Q12	Which learning approach is used when the dataset has both input and output labels?				2									
Q13	List two precautions while collecting data for an AI project .				2									
Q14	Explain the term "Pixel Resolution" with an example. ?				2									
Q15	Identify two stop words from the sentence: "Students are preparing for the annual school function today."				2									
Q16	Draw a confusion matrix if TP=30, TN=50, FP=20, FN=10. ?				2									
Answer any 3 out of the given 5 questions in 50- 80 words each (4 x 3 = 12 marks)														
Q17	Define Artificial Intelligence. Explain with an example from daily life?				4									
Q18	List some advantages and disadvantages of Neural Network.				4									
Q19	Differentiate between Supervised and Unsupervised Learning with examples. ?				4									
Q20	What challenges may occur when training AI systems to understand human languages? Give two points ?				4									
Q21	An AI model predicted student exam results: <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="padding: 5px;">Reality</th> <th style="padding: 5px;">Pass</th> <th style="padding: 5px;">Fail</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Predicted Pass</td> <td style="padding: 5px;">40</td> <td style="padding: 5px;">15</td> </tr> <tr> <td style="padding: 5px;">Predicted Fail</td> <td style="padding: 5px;">10</td> <td style="padding: 5px;">35</td> </tr> </tbody> </table> (i) How many wrong predictions are there? (ii) Calculate Precision, Recall, and F1 Score .				Reality	Pass	Fail	Predicted Pass	40	15	Predicted Fail	10	35	4
Reality	Pass	Fail												
Predicted Pass	40	15												
Predicted Fail	10	35												

PRE-BOARD EXAMINATION, (2025 - 2026)

CLASS-X

ENGLISH LANGUAGE AND LITERATURE (Code 184)

Max. Time-3Hours

MAX. Marks 80.

General Instructions:

Read the instructions very carefully and strictly follow them:

1. This question paper comprises 11 questions. All questions are compulsory
2. The question paper contains THREE sections
 - Section – A: Reading Skills
 - Section – B: Grammar and Creative Writing Skills
 - Section – C: Literature Textbook
3. Attempt questions based on specific instructions for each Part.

SECTION- A

READING SKILLS (20 Marks)

1- Read the following passage and then answer the following questions. (10)

(1) Listening is the ability to accurately receive and interpret messages in the communication process. One of the greatest gifts any of us can ever receive is the gift of listening. It is also one of the greatest gifts we can ever give.

Unfortunately, it appears to be a lost art. We live in a world where everyone is talking but few are listening. What often passes for listening is simply one person pausing to collect their thoughts for their next soliloquy.

(2) Hearing refers to the sounds that you hear, whereas listening requires more than that: it requires focus. Listening means paying attention not only to the story, but how it is told, the use of language and voice, and how the other person uses his or her body. In other words, it means being aware of both verbal and non-verbal messages. Your ability to listen effectively depends on the degree to which you perceive and understand these messages.

(3) Listening is a difficult task. Like every skill, the more you do it, the better you get. Listening can be developed through practice, or lost if not used regularly. Good listeners focus on what they are hearing. They pause to think about what they've heard before responding. They ask questions because they want to know the answers, not just to keep the conversation going.

(4) So often, we are distracted with other things. We try to listen while continuing to work on the computer or watch television. To be fully present means we eliminate these distractions and focus exclusively on the other person. It takes great effort to be fully present in the moment, leaning forward, with your ears and heart open. Words are only part of the communication. Sometimes we need to experience the other person's feelings to really understand. We need to listen with our heart as well as our mind. We must repeat back what the other person has said. When we do this-and do it accurately-we communicate what we understand. It also gives us an opportunity to recalibrate our understanding if we have misunderstood something. Plenty of people are good talkers. Few are good listeners. If you develop the latter skill, you will find yourself invited into amazing conversations that wouldn't otherwise happen.

Answer the following questions, based on the passage.

i. Based on your understanding of the passage, why has the author described listening as "lost art"?
Answer in about 40 words. (2)

ii. Complete the sentence appropriately.

The author is disappointed that pausing to collect their thoughts is often considered
as (1)

iii. What does the author imply by saying we should listen with both "heart and mind"? (2)

iv. "Listening is not just hearing words. Good listeners focus on what they are hearing and try to perceive the feelings behind the words. They do not overlook the emotions of the speaker. True listening helps us understand others and is one of the greatest gifts we can give."

From the words used in the passage, identify the pair that are opposite in meaning:

1. Perceive – Overlook
2. Focus – Ignore
3. Understand – Misinterpret
4. Listening – Speaking

A. 1 and 2, B. 3 and 4, C. 2 and 4, D. 1 and 4

v. Complete the sentence appropriately.

Our ability to listen effectively depends on the (1)

vi. "To be fully present" in a conversation means. (1)

- A. Sitting silently
- B. Avoiding distractions and focusing
- C. Taking notes constantly
- D. Agreeing with the speaker

vii. To repeat back what the other person has said gives us (1)

- A. an opportunity to argue against the speaker's point
- B. a method to dominate the conversation
- C. a way to shift attention from the discussion
- D. an opportunity to correct our understanding if we got it wrong

viii. In the statement "*Good listeners focus on what they are hearing*", the language is primarily: (1)

- A. Figurative
- B. Direct and literal
- C. Persuasive
- D. Poetic

2 Read the following report: (10)

10 ABC School Launches Innovative AI Club to Foster Interest in Artificial Intelligence (by Samira Rao, Secretary, AI Club Ahmedabad)

Nov. 20 – ABC School proudly announces the establishment of its first AI Club, designed to spark interest and engagement in the field of artificial intelligence among students. The club was officially

launched during the school's technology fair on October 18, attracting a diverse group of students eager to learn about AI and its applications.

The event was inaugurated by Ms. Anita Sharma, the school's head of the computer science department, and Raj Mehta, the club's president, who shared their excitement about the potential of AI in shaping the future. They emphasised the importance of understanding AI technologies and their ethical implications in today's rapidly evolving digital landscape. The club aims to provide students with practical experiences through workshops, projects, and discussions with industry professionals. During the fair, club members showcased a series of interactive demonstrations, including AI-powered catboats and simple machine learning models. Attendees were encouraged to participate in coding challenges and explore various AI applications, such as image recognition and natural language processing. The enthusiasm and creativity displayed by the students highlighted their eagerness to dive deeper into this fascinating field. The AI Club has planned a variety of upcoming activities, including coding workshops, guest lectures from AI experts, and collaborative projects with local tech companies. They are also organising a hackathon, where students will have the opportunity to develop their own AI-driven solutions to real-world problems. The AI Club aims to equip students with essential skills and knowledge while fostering a collaborative and innovative learning environment. Created for academic usage /249

Answer the following questions, based on the report above:

I. Complete with a suitable reason:

The AI Club was motivated to plan various upcoming activities because _____. (1)

II. The AI Club intends to deepen students' understanding of artificial intelligence by offering _____, real-world projects, and collaborative sessions with experts in the field. (1)

III. What was the primary goal of the AI Club when it was launched? (1)

- A) To organize coding competitions for students
- B) To teach students about AI and its ethical use
- C) To focus on robotics and hardware development
- D) To prepare students for annual technology fairs

IV. Who did the AI Club collaborate with to provide students hands-on experiences and expert guidance? (1)

- 1. Faculty members
- 2. Local business leaders
- 3. Industry professionals
- 4. Computer science department head
- 5. AI researchers

Select the correct option:

- A. Only 2
- B. Only 5
- C. 3 and 4
- D. 1 and 5

V. What was the most likely purpose of the interactive demonstrations showcased during the technology fair? (1)

VI. What does the passage suggest about the students' interest in artificial intelligence? (1)

VII. What specific skills are the students expected to develop through their participation in the AI Club? (2)

VIII. Explain how the AI club at ABC School aligns with the school's goals of promoting holistic education. (2)

SECTION – B

GRAMMAR AND CREATIVE WRITING SKILLS (20 MARKS)

GRAMMAR (10M)

3. Complete ANY TEN of twelve of the following tasks, as directed. (1×10)

i. Fill in the blank by choosing the correct option to complete the given sentence. (1)

The Indian Constitution guarantees the Right to Equality, which means that (each/any/few/many) citizen is equal before the law and cannot be discriminated against on grounds of religion, race, caste, gender, or place of birth.

ii. Choose the correct option to complete the dialogue. (1)

Ravi: Hi Meera, have you finished your homework?

Meera: Yes, "

Ravi: Wonderful! Then let's revise together.

A. I haven't started yet

B. I have already completed it

C. I don't want to do it

D. I will do it later

iii. Complete the following sentence. (1)

He has practiced speaking English every day, and now he to participate in the school debate competition.

A. had decide

B. decides

C. is preparing

D. was decided

iv. Change the given dialogue into indirect speech. (1)

Priya: Will you join the football team this year?

Arun: Yes, I will.

Priya asked Arun if the football team that year.

v. Fill in the blank by choosing the correct option. (1)

If you want to stay healthy, you eat a balanced diet.

- A. may B. should C. could D. would

vi. Select the option that identifies the error and supplies the correction for the closing line, from a formal report. (1)

Therefore, the survey indicate that most students prefer group study over self-study.

Option

- A. no error
B. correction
- a. indicate indicates
b. most mostly
c. over for
d. therefore However

vii. Rahul: "Where are you going tomorrow, Neha?" (1)

Neha: "I am leaving for Delhi to attend my cousin's wedding."

Question:

Rahul asked Neha _____.

- A. where was she going the next day?
B. where she was going the next day.
C. where she is going the following day.
D. where had she gone the next day.

viii. Fill in the blank by choosing the correct option to complete the sentence to update the result of the regional science fair: (1)

We have exciting news to share! Our school _____ the first place in the regional science fair.

- (A) awarded (B) was awarded (C) had awarded (D) will be awarded

ix. Complete the line from a song by filling in the blank with the correct option: (1)

The morning dew captures your essence,
The flowers and grass _____ your colour,
The Sunrise embraces your arrival,
As the dawn welcomes a new day.

- (A) reflect (B) reflects (C) reflected (D) shall reflect

x. Identify the error and supply correction for the given sentence: (1)

The public health campaign aimed in increase awareness of the risks associated with underage drinking.

xi. Fill in the blank by choosing the correct option to complete the update on the school's chess team.

(1)

It's a victorious day!

Our school's chess team _____ the interschool chess championship.

(A) has been won (B) will winning (C) was winning (D) has won

xii. Complete the line from a song by filling in the blank with the correct option. (1)

The whispering leaves tell your tale,

The silent stones _____ your journey,

The sun casts light on your path,

Leading you towards tomorrow's glory.

(A) have echoed (B) echo (C) echoes (D) shall echo

CREATIVE WRITING SKILLS (10M)

4 (A) As Nalini Sharda of 409, Surya Apartments, Gopalpur, you believe that pedestrian safety is very important. Footpaths on both sides of the main roads of your city need major repairs and on some stretches they need to be constructed.

Write a letter to the MLA of your city area, in about 120 words, stressing the need for footpaths for pedestrian safety. Share your concern for maintenance of existing footpaths and the need to construct new ones where they are required. (1 × 5 = 5)

OR

4(B) As Sohail Khan, the sports captain of Pinnacle Public School, you believe that fitness as a lifestyle should be promoted. Write a letter to the Editor of a national daily, in about 120 words, suggesting the introduction of "Cycle to School" campaign for school going students. The programme aims to develop the habit of exercising through cycling to maintain fitness and keeping children active. Share the importance and credibility of such a programme and suggest a feasible way to execute it along with possible activities. (1×5=5)

5 (A) An area is believed to be water stressed when annual water supplies drop below 1700 cubic metres per person per year. As per an analysis, we are already surviving with around 1700-1800 cubic metres per person per year. As our demand for water has increased drastically over the years, per capita water availability has taken a beating. Based on the given table, write an analytical paragraph, in about 120 words, analysing the possible causes of water scarcity in the future. (5M)

TABLE ON WATER AVAILABILITY

Year	Population (Million)	Per capita water (Availability M3/year)
1951	361	5177
1955	395	4732
1991	846	2209
2001	1027	1820
2025	1394	1341
2050	1640	1140

OR

5(B) Read the given details of a playground intended for your resident area. (5M)

- A central climbing structure inspired by traditional Indian architecture, such as a miniature fort, with multiple levels and slides.
- Swings adorned with colorful Indian patterns, along with monkey bars and a zip line.
- A water play feature inspired by Indian fountains or rivers
- Shaded seating areas with benches and swings, resembling traditional chaupals or gazebos. • Trees, shrubs, and flower beds • Ample open space

Analyse the details and write an analytical paragraph in about 120 words about the suitability of this playground. Focus on factors such as safety, inclusivity, fun features, suitability for different age groups, and overall experience.

SECTION-C

LITERATURE TEXT BOOKS (40 Marks)

6. Read the following extracts and answer the questions for ANY ONE of the given two. **5**

(A) On the day of the inauguration, I was overwhelmed with a sense of history. In the first decade of the 20th century a few years after the bitter Anglo-Boer war and before my own birth, the white skinned people of South Africa patched up their differences and created a system of racial domination against the dark-skinned people of their own land. The structure they created formed the basis of one of the harshest, most inhumane societies the world has ever known. Now, in the last decade of the twentieth century, and my own eighth decade as a man, that system has been overturned forever and replaced by one that recognised the rights and freedoms of all peoples, regardless of the colour of their skin.

(i) What did the narrator feel when he said, “*I was overwhelmed with a sense of history*”? Explain in your own words. (1)

(ii) The system of racial domination created by white-skinned people in South Africa has now been replaced by a system that: (1)

- A) Recognises the rights and freedoms of all people.
- B) Focuses mainly on the education of the Black population.
- C) Reminds people of past bitter experiences.
- D) Prioritises the personal growth of individuals.

(iii) Comment on the kind of society apartheid had created? (2)

(iv) In the extract, the phrase “*patched up their differences*” can be best replaced by: (1)

- | | |
|---------------------------------|------------------------------|
| A) Resolved their disagreements | B) Ignored their differences |
| C) Complicated their conflicts | D) Postponed their issues |

OR

6(B) I started right away at the Montessori Nursery School. I stayed there until I was six, at which time I started in the first form. In the sixth form, my teacher was Mrs. Kuperus, the headmistress. At the end of the year we were both in tears as we said a heart-breaking farewell. In the summer of 1941, Grandma fell ill and had to have an operation, so my birthday passed with little celebration.

(i) "In the summer of 1941, Grandma fell ill and had to have an operation, so my birthday passed with little celebration." What can you infer about Anne from this sentence? Write any one point. (1)

(ii) In the passage, Anne and Mrs. Kuperus were "both in tears." This shows that their relationship was:

(1)

A) Formal and distant
C) Warm and affectionate

B) Friendly but not close
D) Strict and disciplinary

(iii) Why was Anne so emotional when saying goodbye to Mrs. Kuperus at the end of the year? Explain in 2–3 sentences? (2)

iv) Substitute the word 'heart-breaking' with a word similar in meaning in the following sentence. (1)

"At the end of the year we were both in tears as we said a heart-breaking farewell."

7. Read the following extracts and answer the questions for ANY ONE of the given two: **5**

(a) In a world of possessions. People will take

Balls, balls will be lost always, little boy.

And no one buys a ball back. Money is external.

He is learning, well behind his desperate eyes,

The epistemology of loss, how to stand up

Knowing what every man must one day know

And most know many days, how to stand up.

(The Ball Poem)

(i) Fill in the blank with one word.

When the speaker says "People will take balls, Balls will be lost always, little boy", his tone is.....(1)

(ii) The poet says that money is external. What inference can be drawn from this statement? Answer in about 40 words. (2)

(iii) Which of the following best describes the speaker's attitude towards material possessions? (1)

(A) Indifferent (B) emotional (C) Casual (D) respectful

(iv) Identify the poetic device used in "And no one buys a ball back". (1)

OR

(b) Don't eat that chocolate, Amanda!

Remember your acne, Amanda!

Will you please look at me when I'm speaking to you, Amanda!

(I am Rapunzel, I have not a care;

life in a tower is tranquil and rare;

I'll certainly never let down my bright hair!)

(i) What is the central idea of the poem as reflected in the lines above? Answer in about 40 words.(2)

(ii) Complete the sentence with the appropriate option. (1)

"Will you please look at me when I'm speaking to you, Amanda!" tells us that the mother's attitude is

- (A) Loving (B) relaxed (C) Authoritative (D) thoughtful

(iii) Identify any one poetic device used in the above extract. (1)

(iv) For what reason does Amanda imagine herself to be Rapunzel? (1)

8. Answer ANY FOUR of the following five questions in 40-50 words each: (4×3=12)

A). What conditions made crossing the storm clouds difficult? "The Black Aeroplane".

b). How did the Buddha respond to Kisa Gotami's request? What can be inferred about his method of teaching from the same? "The Sermon at Benares"

c). "The Lomovs and the Chubukovs have always had the most friendly, and I might almost say the most affectionate, regard for each other." How would you evaluate Lomov and Chubukov's relationship as neighbours? "The Proposal"

d). 'The field was white, as if covered with salt.' This is how the field is described after the hailstorm. The pelting hailstones could have been easily seen as sugar cubes. Do you think comparing it with sugar would have been more appropriate? Why/Why not? "A Letter to God".

e). When would the baker come every day? Why did the children run to meet him? "Glimpses of India"

9. Answer ANY TWO of the following three questions in 40 50 words each: (2×3=6)

a). According to a popular quote - "Where there is no struggle, there is no strength". In what way is this quote relevant to the events of the story "A Triumph of Surgery?"

b). How does education play a transformative role in Bholi's life?.

c). "Stereotypes are often misleading". Elaborate on the given quote in the context of "The Midnight Visitor".

10. Answer ANY ONE of the following two questions in 100-120 words. (6)

(a) Grief or sadness is an emotion natural to all types of loss or significant change. You have been asked to present an analysis of the approaches of Lencho and Kisa Gotami in dealing with their respective losses. Write this presentation draft including your insights, and comparing the approaches of both.

You may begin like this One acknowledges that Lencho had unwavering faith in God whereas Kisa Gotami in her grief, believed that her sonhowever.....

(Reference - A Letter to God and The Sermon at Benares)

OR

(b) You have been chosen to address the school assembly on the occasion of Women's Day. You choose to speak on the resilience and indomitable spirit of the young girls: Anne Frank and Valli. Prepare the speech draft, with reference to the commonality and contrast in the situations and circumstances of both the girls.

(Madam Rides the Bus and From the Diary of Anne Frank)

You may begin like this: Good morning everyone. Today, I'd like to express my insights on the resilience of two young girls. You may end this way: To conclude I'd like to say that.....

Thank

you.

11. Answer ANY ONE of the following two questions in 100-120 words: (6)

(i) How did the lady in red manage to outsmart and out manoeuvre the other thief, Horace Danby, by robbing the safe without leaving a single fingerprint? (A Question of Trust)

OR

(ii) Hari Singh says "He knew it but neither his lips nor his eyes showed anything."

Anil successfully addressed the situation by not addressing it at all. Elaborate based on your reading of The Thief's Story.

सेट: 1

प्रथम पूर्व परिषदीय परीक्षा (2025-26)

हिन्दी(पाठ्यक्रम-अ) विषय कोड-002

कक्षा: दसवीं

विषय- हिंदी

निर्धारित समय: 3 घंटे

अधिकतम अंक : 80

सामान्य निर्देश :

निम्नलिखित निर्देशों को बहुत सावधानी से पढ़िए और उनका अनुपालन कीजिए:

- (i) इस प्रश्नपत्र में कुल चार खंड हैं- क,ख ग,घ ।
- (ii) इस प्रश्नपत्र में कुल 15 प्रश्न हैं, सभी प्रश्न अनिवार्य हैं।
- (iii) प्रश्नपत्र में आंतरिक विकल्प दिए गए हैं।
- (iv) सभी प्रश्नों के उत्तर दिए गए निर्देशों का पालन करते हुए लिखें ।

प्रश्न संख्या	खंड - क (अपठित बोध)	अंक (14)
1	<p>निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर उस पर आधारित पूछे गए प्रश्नों के उत्तर लिखिए:</p> <p>हर व्यक्ति चाहता है कि उसे जीवन में कभी निराशा ना मिले, वह हमेशा सफलता प्राप्त करें और हर जगह उसे सम्मान और लोकप्रियता मिले, लेकिन यह इतना आसान नहीं है। ये सुख पाने के लिए व्यक्ति को कई प्रकार के जतन करने पड़ते हैं। जैसा कि सभी जानते हैं कि हर सफलता के पीछे एक कठिन परिश्रम और संघर्ष की कहानी छिपी होती है।</p> <p>जो व्यक्ति सामने वाले को प्रभावित कर सकता है वही सफलता को प्राप्त करता है। सफलता की नई नई सीढ़ियां चढ़ते हुए व्यक्ति लोकप्रियता के मुकाम को भी पा लेता है। उसे समाज में जानने वाले लोगों की संख्या बढ़ती चली जाती है। कौन नहीं चाहता है कि उन्हें ज़्यादा से ज़्यादा लोग जानें, उनकी सामाजिक पहचान बढ़े।</p> <p>समाज में ज़्यादा से ज़्यादा उनका नाम हो परंतु इसकी लोकप्रियता की जो कीमत चुकानी होती है, उसके लिए कम ही लोग तैयार होते हैं। आप चर्चित है तो आपको सामाजिक जवाब देही भी अधिक होती है। हर अनुकूल-प्रतिकूल स्थिति के लिए आपको बाकी लोगों से ज़्यादा तैयारी करनी पड़ती है। चर्चित होने के बाद खुद के मुताबिक सामान्य जीवन जीना</p>	7

	<p>और भी कठिन होता है चर्चित लोगों से अनौपचारिक बात करें ,तो पाएँगे कि ऐसे में वे जो बता रहे हैं ,उससे वह अलग है,जो उन्होंने अनौपचारिक बातचीत के दौरान कही थी ।</p> <p>चर्चित व्यक्तियों की बनी छवि प्रायः सच्चाई से अलग होती है। विडंबना यह है कि वे खुद भी उस सभी को जीने में लग जाते हैं जो गढ़ी गई है। अलबर्ट आइंस्टीन जिन्हें लोग सुपर मानव कहते थे जो अपने जीवन काल में ही इस दुनिया के सर्वाधिक लोकप्रिय व्यक्ति थे एक बार उन्होंने कहा था कि “मेरी उपलब्धियों व मेरी क्षमताओं के बीच, जो लोगों द्वारा समझी गई हैं और वास्तव में जो मैं हूँ एक विरोधाभास है।</p> <p>”लोकप्रियता के सामाजिक-नैतिक पहलुओं पर अध्ययन करने वाले मनोविज्ञानी कहते हैं कि “टिकाऊ लोकप्रियता सही मायने में वही है, जो दिलों पर राज करवाए , न कि चर्चाओं में। ”चर्चा में सरल होना सरल है पर इसकी प्रक्रिया जटिल है, इसलिए लोकप्रिय व्यक्ति प्रायः बदनाम भी जल्द होता है। उसके नकारात्मक पहलू भी जल्द सामने आते हैं। उन पर अहम भी जल्द हावी हो जाता है। ऐसी लोकप्रियता अक्सर यह भ्रम देती है कि आप सामान्य से अलग हैं।</p> <p>यह सोच अपनों व दूसरों से बहुत दूर ले जाती है। इसे संतुलित तरीके से न लिया जाए तो ज़्यादातर चर्चित व्यक्तियों के लिए यह दुखी करने वाली होती है अंततः यह बात याद रखें कि प्रसिद्ध लोगों को गुमनामी का सम्मान करना और खुद को नैतिक बनाए रखना आना चाहिए अन्यथा वक्त की हवा के बीच वे तिनके की तरह उड़ा दिए जाएँगे।</p>	
(क)	<p>अधिक परिचित लोगों की क्या कठिनाइयाँ होती हैं ?</p> <p>(i) उनकी समाज के प्रति जवाबदेही बढ़ जाती है</p> <p>(ii) प्रत्येक स्थिति में अन्य लोगों की अपेक्षा अधिक तैयार रहना पड़ता है</p> <p>(iii) वे सामान्य जनता की तरह जीवन नहीं जी पाते</p> <p>(iv) उपर्युक्त सभी</p>	1
(ख)	<p>हर सफलता के पीछे ————— होती है ।</p> <p>(i) कठिन परिश्रम की कहानी</p> <p>(ii) संघर्ष की कहानी</p> <p>(iii) (i) और (ii) दोनों</p> <p>(iv) स्वास्थ्य की कहानी</p>	1
(ग)	<p>कथन (A) और कथन (R) को पढ़कर उपर्युक्त विकल्प का चयन कर लिखिए:</p> <p>कथन (A) लोकप्रिय व्यक्ति शीघ्र ही बदनाम हो जाते हैं ।</p> <p>कथन (R) उनमें अहम् बहुत जल्दी आ जाता है ।</p> <p>(i) कथन (A) ग़लत है, किंतु कारण (R) सही है।</p> <p>(ii) कथन (A) और कारण (R) दोनों ही ग़लत हैं</p> <p>(iii) कथन (A) सही है तथा कारण (R), कथन (A) की सही व्याख्या है।</p> <p>(v) कथन(A) और कारण (R) दोनों सही हैं, किंतु कारण (R) कथन (A) की सही व्याख्या नहीं</p>	1

	है।	
(घ)	गद्यांश के अनुसार लोकप्रिय व्यक्ति के जीवन में क्या विडंबना है स्पष्ट कीजिए ?	2
(ङ)	चर्चित व्यक्तियों की छवि कैसी होती है ?	2
2	निम्नलिखित काव्यांश को ध्यानपूर्वक पढ़कर उस पर आधारित पूछे गए प्रश्नों के उत्तर लिखिए:	7
	<p>हे ग्राम देवता ! नमस्कार ! सोने -चाँदी से नहीं,किन्तु तुमने मिट्टी से किया प्यार । हे ग्राम देवता ! नमस्कार! जन कोलाहल से दूर कहीं एकाकी सिमटा-सा निवास , रवि-शशि का उतना नहीं जितना प्राणों का होता प्रकाश , श्रम वैभव के बल पर करते हो जड़ से चेतन का विकास , दानों-दानों में फूट रहे सौ-सौ दानों के हरे हास, यह हैं न पसीने की धारा, यह गंगा की है धवल धार, हे ग्राम देवता! नमस्कार! अध खुले अंग जिनमें केवल, हैं कसे हुए कुछ अस्थि-खंड जिनमें दधीचि की हड्डी है यह व्रज इंद्र का है प्रचंड। जो है गतिशील सभी ऋतु में, गर्मी,वर्षा हो या कि ठंड, जगत को देते हो पुरस्कार देकर अपने को कठिन दंड। झोपड़ी झुकाकर तुम अपनी ऊँची करते हो राज-द्वार! हे ग्राम देवता! नमस्कार!</p>	
(क)	प्रस्तुत काव्यांश के आधार पर बतायें कि कवि ने ग्राम देवता किसे कहा है ? (i) गाँव के देवता को (ii) किसान को (iii) गाँव को (iv) ईश्वर को	1
(ख)	प्रस्तुत काव्यांश निम्न में से किससे संबंधित नहीं है - (i) दंड-पुरस्कार से (ii) गाँव की झोपड़ियों से (iii) किसान से (iv) उपरोक्त सभी	1

(ग)	<p>कथन (A) और कथन (R) को पढ़कर उपयुक्त विकल्प का चयन कर लिखिए :</p> <p>कथन (A) कवि ने किसानों को ग्राम देवता के रूप में चित्रित किया है । कथन (R) वह अपनी मिट्टी से प्रेम करते हैं और अपने श्रम से मिट्टी में अन्न उगाते हैं।</p> <p>(i) कथन (A) सही है, किंतु कारण (R) ग़लत है। (ii) कथन (A) ग़लत है, किंतु कारण (R) सही है। (iii) कथन (A) और कारण (R) दोनों सही हैं, किंतु कारण (R), कथन (A) की सही व्याख्या नहीं है । (iv) कथन (A) और कारण (R) दोनों ही सही हैं तथा कारण (R), कथन (A) की सही व्याख्या है</p>	1
(घ)	ग्राम देवता कहाँ निवास करते हैं और कवि किसान को प्रणाम क्यों करता है?	2
(ङ)	प्रस्तुत कविता में अधखुले अंग किसके बताए गए हैं और क्यों?	2
खंड - ख (व्यावहारिक व्याकरण)		16
3	निर्देशानुसार 'रचना के आधार पर वाक्य भेद' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर लिखिए:	(4x1=4)
(क)	शाम हुई और मजदूर घर कि ओर चल दिए। (सरल वाक्य बदलिए)	1
(ख)	वे बोलते जा रहे थे और पिताजी का चेहरा गर्व से बदलता जा रहा था। (रचना के आधार पर वाक्य का भेद लिखिए)	1
(ग)	घंटी बजी, छात्र पुस्तकें लेकर कक्षा से बाहर निकले। छात्र घर चले गए। (संयुक्त वाक्य में बदलिए)	1
(घ)	<u>जब तुम जाओगे</u> तभी मैं जाऊँगा। रेखांकित अंश उपवाक्य का कौन सा भेद है?	1
(ङ)	कुछ पहाड़ी औरतें पत्थर तोड़ रही थीं (रचना के आधार पर वाक्य का भेद लिखिए)	1

4	निर्देशानुसार 'वाच्य' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर लिखिए:	(4x1=4)
(क)	अध्यापक ने आज हमें नया पाठ पढ़ाया। (कर्मवाच्य में बदलिए)	1
(ख)	गर्मियों में हम खूब नहाते हैं। (वाच्य पहचानकर भेद बताइए)	1
(ग)	सफेदपोश सज्जन सुविधा से पालथी मारे बैठे थे (वाच्य पहचानकर भेद बताइए)	1
(घ)	कर्मवाच्य में क्रिया के लिंग, वचन और पुरुष किसके अनुसार होते हैं?	1

(ड)	मैं चुप नहीं बैठ सकता। बदलिए)	(भाववाच्य में)	1
5	निर्देशानुसार 'पद परिचय' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के रेखांकित पदों का पद-परिचय लिखिए:		(4x1=4)
(क)	राजेश आज दिल्ली जाएगा।		1
(ख)	वाह! उपवन में सुंदर फूल खिले हैं।		1
(ग)	बच्चे धीरे-धीरे पढ़ रहे थे।		1
(घ)	वे बहुत अच्छे लोग हैं।		1
(ड)	शद्ध कब पद बन जाता है?		1
6	निर्देशानुसार 'अलंकार' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों की रेखांकित काव्य पंक्तियों में अलंकार पहचान कर लिखिए :		(4x1=4)
(क)	सिर फट गया उसका मानो अरुण रंग का घड़ा।		1
(ख)	सुनहु राम जेहि सिवधनु तोरा। सहसबाहु सम सो रियु मोरा।।		1
(ग)	बाण नहीं पहुँचे शरीर तक, शत्रु गिरे पहले ही भू पर।		1
(घ)	सागर के उर पर नाच -नाच करती हैं लहरें मधुर गान।		1
(ड)	प्रीति-नदी मैं पाऊँ न बोरयौ।		1
	खंड - ग (पाठ्यपुस्तक एवं पूरक पाठ्यपुस्तक)		30
7	निम्नलिखित पठित गद्यांश पर आधारित बहुविकल्पीय प्रश्नों के सर्वाधिक उपयुक्त विकल्प चुनकर लिखिए: एक संस्कृत व्यक्ति किसी नई चीज की खोज करता है, किंतु उसकी संतान को वह अपने पूर्वजों से अनायास ही प्राप्त हो जाती है। जिस व्यक्ति की बुद्धि ने अथवा उसके विवेक ने किसी भी नए तथ्य का दर्शन किया, वह व्यक्ति ही वास्तविक संस्कृत व्यक्ति है और उसकी संतान, जिसे अपने पूर्वज से वह वस्तु अनायास ही प्राप्त हो गई है, वह अपने पूर्वज की भाँति सभ्य भले ही बन जाए, संस्कृत नहीं कहला सकता। एक आधुनिक उदाहरण लें। न्यूटन ने गुरुत्वाकर्षण के सिद्धान्त का आविष्कार किया। वह संस्कृत मानव था। आज के युग का भौतिक विज्ञान का विद्यार्थी न्यूटन के गुरुत्वाकर्षण से तो परिचित है ही, लेकिन उसके साथ उसे और भी अनेक बातों का ज्ञान प्राप्त है, जिनसे शायद न्यूटन अपरिचित ही रहा। ऐसा होने पर हम आज के भौतिक विज्ञान के विद्यार्थी को न्यूटन की अपेक्षा अधिक सभ्य भले ही कह सके, परंतु न्यूटन जितना संस्कृत नहीं कह सकते।		(5x1=5)

(क)	<p>संस्कृत व्यक्ति की उपलब्धि क्या है?</p> <p>(i) अनायास ही वस्तु प्राप्त हो जाना (ii) पूर्वजों द्वारा अपरिचित होना (iii) अपने विवेक से नई चीज की खोज करना (iv) उपर्युक्त सभी</p>	1
(ख)	<p>वह व्यक्ति सभ्य कहलाता है जो -</p> <p>1. जिसने नए तथ्यों की खोज की है। 2. जिसे अपने पूर्वजों से वस्तु अनायास ही प्राप्त हुई है। 3. जिसने गुरुत्वाकर्षण की खोज की। 4. उसने अपने विवेक का प्रयोग किया है।</p> <p>(i) कथन 1,2,4 सही है। (ii) कथन 2 सही है। (iii) कथन 3 और 4 सही हैं। (iv) कथन 1 और 2 सही हैं।</p>	1
(ग)	<p>न्यूटन को संस्कृत मानव किस आधार पर कहा जा सकता है?</p> <p>(i) न्यूटन भौतिक विज्ञान को जानता था (ii) न्यूटन अनेक बातों से परिचित था। (iii) न्यूटन सभ्य दिखता था। (iv) न्यूटन ने गुरुत्वाकर्षण सिद्धांत का आविष्कार किया।</p>	1
(घ)	<p>कथन (A) आज के भौतिक विज्ञान के विद्यार्थी को सभ्य कह सकते हैं संस्कृत नहीं।</p> <p>कारण (R) विद्यार्थी ने गुरुत्वाकर्षण के सिद्धांत का आविष्कार किया।</p> <p>(i) कथन (A) और कारण (R) दोनों सही हैं तथा कारण (R), कथन (A) की सही व्याख्या करता है। (ii) कथन (A) और कारण (R) दोनों सही हैं, परंतु कारण (R), कथन (A) की सही व्याख्या नहीं करता है। (iii) कथन (A) सही है, किंतु कारण (R) गलत है। (iv) कथन (A) गलत है, किंतु कारण (R) सही है। (A) आज के भौतिक विज्ञान के विद्यार्थी को सभ्य कह सकते हैं।</p>	1

(ड)	भौतिक विज्ञान के विद्यार्थी को न्यूटन की अपेक्षा अधिक सभ्य क्यों कहा गया है ? (i) क्योंकि उसे न्यूटन के बाद की अनेक बातों का ज्ञान था । (ii) क्योंकि उसे सिद्धांतों की जानकारी नहीं थी । (iii) क्योंकि विद्यार्थी न्यूटन के गुरुत्वाकर्षण से परिचित नहीं है । (iv) क्योंकि उसे संस्कृति की पहचान थी ।	1
8	निर्धारित गद्य पाठों के आधार पर निम्नलिखित चार प्रश्नों में से किन्हीं तीन प्रश्नों के उत्तर लगभग 25-30 शब्दों में लिखिए:	(3x2=6)
(क)	महानगरों में रहने वाले लोग प्रायः “पड़ोस कल्चर” से वंचित क्यों रह जाते हैं? ‘एक कहानी यह भी’ पाठ के आधार पर स्पष्ट कीजिए।	2
(ख)	‘नेताजी का चश्मा’ पाठ में देशभक्ति की भावना पर किस प्रकार बल दिया गया है? स्पष्ट करें।	2
(ग)	‘बालगोबिन भगत’ पाठ के आधार पर बताए कि बालगोबिन भगत की दिनचर्या लोगों के आश्चर्य का विषय क्यों थी ?	2
(घ)	बिस्मिल्ला खाँ की एक संगीत साधक के रूप में क्या विशेषताएँ थी? सोदाहरण स्पष्ट करें ।	2
9	निम्नलिखित पठित काव्यांश पर आधारित बहुविकल्पीय प्रश्नों के सर्वाधिक उपयुक्त उत्तर वाले विकल्प चुनकर लिखिए: बहसि लखन बोले मूदु बानी ।अहो मुनीसु महाभट मानी । पुनि पुनि मोहि देखाव कुठारु चहत उड़ावन फूँकि पहारु । इहाँ कुम्हड़बतिआ कोउ नाहि ।जे तरजनी देखि मरि जाहीं । देखि कुठारु सरासन बाना भैं कछु कहा सहित अभिमाना । भृगुसुत समुझि जनेउ बिलोकी ।जो कछु कहहु सहौं रिस रोकी । सुर महिसुर हरिजन अरु गाई हमरे कुल इन्ह पर न सुराई । बधे पापु अपकीरति हारें ।भारतहूँ पा परिअ तुम्हारें । कोटि कुलिस सम बचनु तुम्हारा ।ब्यर्थ धरहु धनु बान कुठारा । । जो बिलोकि अनुचित कहेउँ छमहु महामुनि धीर । सुनि सरोष भृगुबंसमनि बोले गिरा गंभीर ।	(5x1=5)
(क)	‘चहत उड़ावन फूँकि पहारु’ पंक्ति का आशय है सही विकल्प का चयन कीजिए । 1. फूँककर पहाड़ उठाना चाहते हैं । 2. फूँककर पहाड़ पर चढ़ना चाहते हैं । 3. कुठार को फूँक मारकर उड़ाना चाहते हैं ।	1

	<p>4. बाण को फूँक से उठाना चाहते हैं। कूट (i) कथन 1 सही है। (ii) कथन 2 सही है। (iii) कथन 1 और 2 सही हैं। (iv) कथन 3 और 4 सही हैं।</p>	
(ख)	<p>‘भृगुसुत’ शब्द किसके लिए प्रयुक्त हुआ है ? (i) श्री राम के लिए (ii) लक्ष्मण के लिए (iii) परशुराम के लिए (vi) वाल्मीकि के लिए</p>	1
(ग)	<p>कथन (A) लक्ष्मण जी परशुराम को ब्राह्मण जानकर उनका वध नहीं कर रहे। कारण (R) उनके कुल में किसी का वध नहीं किया जाता। (i) कथन (A) और कारण (R) दोनों सही हैं तथा कारण (R), कथन (A) की सही व्याख्या करता है। (ii) कथन (A) और कारण (R) दोनों सही हैं, परंतु कारण (R), कथन (A) की सही व्याख्या नहीं करता है। (iii) कथन (A) सही है, किंतु कारण (R) गलत है। (iv) कथन (A) गलत है, किंतु कारण (R) सही है।</p>	1
(घ)	<p>काव्यांश के अनुसार रघुकुल की मर्यादा है। (i) देवता, ब्राह्मण, हरिभक्त व गाय की रक्षा करना (ii) स्त्री का सम्मान नहीं करना (iii) लोगों पर अत्याचार करना (iv) बड़े-बुजुर्गों का सम्मान नहीं करना</p>	1
(ङ)	<p>परशुराम के वचनों की क्या विशेषता है ? सही विकल्प का चयन कीजिए। (1) वे अत्यंत मृदु वचन बोलते हैं। (2) वे अत्यंत कटु वचन बोलते हैं। (3) वे व्यर्थ ढींठे नहीं हाँकते हैं। (4) वे करोड़ों वज्रों के समान कठोर वचन बोलते हैं। कूट (i) कथन 1 सही है। (ii) कथन 1 और 2 सही हैं। (iii) कथन 3 और 4 सही हैं।</p>	1

	(iv) कथन 2,4 सही है।	
10	निर्धारित कविताओं के आधार पर निम्नलिखित चार प्रश्नों में से किन्हीं तीन प्रश्नों के उत्तर लगभग 25-30 शब्दों में लिखिए:	(3x2=6)
(क)	'अट नहीं रही है' कविता के आधार पर बताइए कि फागुन मास के आने से पेड़ों की डालियों के स्वरूप में क्या परिवर्तन दिखाई देता है?	2
(ख)	सूरदास द्वारा प्रस्तुत पदों के आधार पर गोपियों का योग साधना के प्रति दृष्टिकोण स्पष्ट कीजिए।	2
(ग)	संगतकार की आवाज में दिखाई देने वाली हिचक क्या प्रदर्शित करती है?	2
(घ)	कवि के जीवन के अनुभव ही उन्हें आत्मकथा लिखने से रोकते हैं। 'आत्मकथ्य' कविता के आधार पर उत्तर लिखें।	2
11	पूरक पाठ्य पुस्तक के पाठों पर आधारित निम्नलिखित तीन प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर लगभग 50-60 शब्दों में लिखिए:	(2x4=8)
(क)	"माता का अंचल" पाठ में ग्रामीण परिवेश का चित्रण किया गया है। ग्रामीण परिवेश और शहरी जीवन में क्या अंतर पाते हैं?	4
(ख)	पेड़, पौधे, पशु और आदमी सब अपनी-अपनी लय, ताल और गति में हैं। हमारी पीढ़ी ने प्रकृति की इस लय, ताल और गति से खिलवाड़ कर अक्षम्य अपराध किया है। 'साना-साना हाथ जोड़ि' पाठ के आधार पर बताइए कि इस अक्षम्य अपराध का प्रायश्चित्त मनुष्य किस प्रकार कर सकता है?	4
(ग)	'मैं क्यों लिखता हूँ' पाठ के आधार पर लेखक ने अपने आपको हिरोशिमा के विस्फोट का भोक्ता कब और किस तरह महसूस किया?	4

	खंड-घ (रचनात्मक लेखन)	20
12	<p>निम्नलिखित तीन विषयों में से किसी एक विषय पर संकेत बिन्दुओं के आधार पर लगभग 120 शब्दों में एक अनुच्छेद लिखिए।</p> <p>(क) प्राकृतिक आपदाएँ संकेत बिंदु</p> <ul style="list-style-type: none"> • भूमिका • प्राकृतिक आपदाओं के दुष्प्रभाव • प्राकृतिक आपदाओं के कारण • बचाव के उपाय <p>(ख) सड़क सुरक्षा- जीवन रक्षा</p> <p style="text-align: center;">संकेत बिंदु :</p> <ul style="list-style-type: none"> • यातायात के नियमों के पालन का महत्त्व • नियम का पालन न करने से • नियम पालन की उपयोगिता • सड़क सुरक्षा के लिए बनाए गए नियमों का पालन करने का संकल्प • <p>(ग) इंटरनेट की दुनिया संकेत बिंदु:</p> <ul style="list-style-type: none"> • भूमिका • भारत एवं विश्व में इंटरनेट की स्थिति • इंटरनेट के लाभ • इंटरनेट के दुष्परिणाम 	(1x6=6)
13	<p>(क) आप स्वाति गाँधी /अनूप गाँधी हैं। समाचार-पत्रों में विज्ञापनों की भरमार को कम करने और समसामयिक विषयों पर लेखन की आवश्यकता को दर्शाते हुए दैनिक जागरण समाचार-पत्र के संपादक को अनुरोध करते हुए 100 शब्दों में पत्र लिखिए।</p> <p style="text-align: center;">अथवा</p> <p>(ख) आपका नाम राजसिंह / राधा राजपूत है। आप अपने विद्यालय के छात्र-छात्राओं के साथ बाढ़ पीड़ित लोगों की सेवा के लिए जाना चाहते हो। इस कार्य हेतु अनुमति माँगते हुए अपने पिता को 100 शब्दों में पत्र लिखिए।</p>	(1x5=5)

14	<p>क) आपका नाम आशीष शर्मा/आशा शर्मा है। आप बी.एड. कर चुके हैं विद्यास्थली स्कूल में विज्ञान शिक्षक का पद रिक्त है इसके लिए संक्षिप्त स्ववृत्त (बायोडाटा) लगभग 80 शब्दों में तैयार कीजिए।</p> <p style="text-align: center;">अथवा</p> <p>(ख) आप मेधावी / माधव हैं। आपका ए.टी.एम.कार्ड खो गया है उसकी सूचना देते हुए 'नेशनल बैंक' के शाखा प्रबंधक को लगभग 80 शब्दों में एक ई-मेल लिखिए।</p>	(1x5=5)
15	<p>(क) प्रदूषण से बचने के लिए पर्यावरण विभाग की ओर से जनहित में जारी एक आकर्षक विज्ञापन लगभग 40 शब्दों में तैयार कीजिए।</p> <p style="text-align: center;">अथवा</p> <p>(ख) आपके छोटे भाई ने एक नया घर खरीदा है, जिसकी बधाई स्वरूप एक संदेश 40 शब्दों में लिखिए।</p>	(1x4=4))

सेट: 1

प्रथम पूर्व परिषदीय परीक्षा (2025-26)

हिन्दी(पाठ्यक्रम-अ) विषय कोड-002

कक्षा: दसवीं

विषय- हिंदी

निर्धारित समय: 3 घंटे

अधिकतम अंक : 80

सामान्य निर्देश :

निम्नलिखित निर्देशों को बहुत सावधानी से पढ़िए और उनका अनुपालन कीजिए:

- (i) इस प्रश्नपत्र में कुल चार खंड हैं- क,ख ग,घ ।
- (ii) इस प्रश्नपत्र में कुल 15 प्रश्न हैं, सभी प्रश्न अनिवार्य हैं।
- (iii) प्रश्नपत्र में आंतरिक विकल्प दिए गए हैं।
- (iv) सभी प्रश्नों के उत्तर दिए गए निर्देशों का पालन करते हुए लिखें ।

प्रश्न संख्या	खंड - क (अपठित बोध)	अंक (14)
1	<p>निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर उस पर आधारित पूछे गए प्रश्नों के उत्तर लिखिए:</p> <p>हर व्यक्ति चाहता है कि उसे जीवन में कभी निराशा ना मिले, वह हमेशा सफलता प्राप्त करें और हर जगह उसे सम्मान और लोकप्रियता मिले, लेकिन यह इतना आसान नहीं है। ये सुख पाने के लिए व्यक्ति को कई प्रकार के जतन करने पड़ते हैं। जैसा कि सभी जानते हैं कि हर सफलता के पीछे एक कठिन परिश्रम और संघर्ष की कहानी छिपी होती है।</p> <p>जो व्यक्ति सामने वाले को प्रभावित कर सकता है वही सफलता को प्राप्त करता है। सफलता की नई नई सीढ़ियां चढ़ते हुए व्यक्ति लोकप्रियता के मुकाम को भी पा लेता है। उसे समाज में जानने वाले लोगों की संख्या बढ़ती चली जाती है। कौन नहीं चाहता है कि उन्हें ज़्यादा से ज़्यादा लोग जानें, उनकी सामाजिक पहचान बढ़े।</p> <p>समाज में ज़्यादा से ज़्यादा उनका नाम हो परंतु इसकी लोकप्रियता की जो कीमत चुकानी होती है, उसके लिए कम ही लोग तैयार होते हैं। आप चर्चित है तो आपको सामाजिक जवाब देही भी अधिक होती है। हर अनुकूल-प्रतिकूल स्थिति के लिए आपको बाकी लोगों से ज़्यादा तैयारी करनी पड़ती है। चर्चित होने के बाद खुद के मुताबिक सामान्य जीवन जीना</p>	7

	<p>और भी कठिन होता है चर्चित लोगों से अनौपचारिक बात करें ,तो पाएँगे कि ऐसे में वे जो बता रहे हैं ,उससे वह अलग है,जो उन्होंने अनौपचारिक बातचीत के दौरान कही थी ।</p> <p>चर्चित व्यक्तियों की बनी छवि प्रायः सच्चाई से अलग होती है। विडंबना यह है कि वे खुद भी उस सभी को जीने में लग जाते हैं जो गढ़ी गई है। अलबर्ट आइंस्टीन जिन्हें लोग सुपर मानव कहते थे जो अपने जीवन काल में ही इस दुनिया के सर्वाधिक लोकप्रिय व्यक्ति थे एक बार उन्होंने कहा था कि “मेरी उपलब्धियों व मेरी क्षमताओं के बीच, जो लोगों द्वारा समझी गई हैं और वास्तव में जो मैं हूँ एक विरोधाभास है।</p> <p>”लोकप्रियता के सामाजिक-नैतिक पहलुओं पर अध्ययन करने वाले मनोविज्ञानी कहते हैं कि “टिकाऊ लोकप्रियता सही मायने में वही है, जो दिलों पर राज करवाए , न कि चर्चाओं में। ”चर्चा में सरल होना सरल है पर इसकी प्रक्रिया जटिल है, इसलिए लोकप्रिय व्यक्ति प्रायः बदनाम भी जल्द होता है। उसके नकारात्मक पहलू भी जल्द सामने आते हैं। उन पर अहम भी जल्द हावी हो जाता है। ऐसी लोकप्रियता अक्सर यह भ्रम देती है कि आप सामान्य से अलग हैं।</p> <p>यह सोच अपनों व दूसरों से बहुत दूर ले जाती है। इसे संतुलित तरीके से न लिया जाए तो ज़्यादातर चर्चित व्यक्तियों के लिए यह दुखी करने वाली होती है अंततः यह बात याद रखें कि प्रसिद्ध लोगों को गुमनामी का सम्मान करना और खुद को नैतिक बनाए रखना आना चाहिए अन्यथा वक्त की हवा के बीच वे तिनके की तरह उड़ा दिए जाएँगे।</p>	
(क)	<p>अधिक परिचित लोगों की क्या कठिनाइयाँ होती हैं ?</p> <p>(i) उनकी समाज के प्रति जवाबदेही बढ़ जाती है</p> <p>(ii) प्रत्येक स्थिति में अन्य लोगों की अपेक्षा अधिक तैयार रहना पड़ता है</p> <p>(iii) वे सामान्य जनता की तरह जीवन नहीं जी पाते</p> <p>(iv) उपर्युक्त सभी</p>	1
(ख)	<p>हर सफलता के पीछे ————— होती है ।</p> <p>(i) कठिन परिश्रम की कहानी</p> <p>(ii) संघर्ष की कहानी</p> <p>(iii) (i) और (ii) दोनों</p> <p>(iv) स्वास्थ्य की कहानी</p>	1
(ग)	<p>कथन (A) और कथन (R) को पढ़कर उपर्युक्त विकल्प का चयन कर लिखिए:</p> <p>कथन (A) लोकप्रिय व्यक्ति शीघ्र ही बदनाम हो जाते हैं ।</p> <p>कथन (R) उनमें अहम् बहुत जल्दी आ जाता है ।</p> <p>(i) कथन (A) ग़लत है, किंतु कारण (R) सही है।</p> <p>(ii) कथन (A) और कारण (R) दोनों ही ग़लत हैं</p> <p>(iii) कथन (A) सही है तथा कारण (R), कथन (A) की सही व्याख्या है।</p> <p>(v) कथन(A) और कारण (R) दोनों सही हैं, किंतु कारण (R) कथन (A) की सही व्याख्या नहीं</p>	1

	है।	
(घ)	गद्यांश के अनुसार लोकप्रिय व्यक्ति के जीवन में क्या विडंबना है स्पष्ट कीजिए ?	2
(ङ)	चर्चित व्यक्तियों की छवि कैसी होती है ?	2
2	निम्नलिखित काव्यांश को ध्यानपूर्वक पढ़कर उस पर आधारित पूछे गए प्रश्नों के उत्तर लिखिए:	7
	<p>हे ग्राम देवता ! नमस्कार ! सोने -चाँदी से नहीं,किन्तु तुमने मिट्टी से किया प्यार । हे ग्राम देवता ! नमस्कार! जन कोलाहल से दूर कहीं एकाकी सिमटा-सा निवास , रवि-शशि का उतना नहीं जितना प्राणों का होता प्रकाश , श्रम वैभव के बल पर करते हो जड़ से चेतन का विकास , दानों-दानों में फूट रहे सौ-सौ दानों के हरे हास, यह हैं न पसीने की धारा, यह गंगा की है धवल धार, हे ग्राम देवता! नमस्कार! अध खुले अंग जिनमें केवल, हैं कसे हुए कुछ अस्थि-खंड जिनमें दधीचि की हड्डी है यह व्रज इंद्र का है प्रचंड। जो है गतिशील सभी ऋतु में, गर्मी,वर्षा हो या कि ठंड, जगत को देते हो पुरस्कार देकर अपने को कठिन दंड। झोपड़ी झुकाकर तुम अपनी ऊँची करते हो राज-द्वार! हे ग्राम देवता! नमस्कार!</p>	
(क)	प्रस्तुत काव्यांश के आधार पर बतायें कि कवि ने ग्राम देवता किसे कहा है ? (i) गाँव के देवता को (ii) किसान को (iii) गाँव को (iv) ईश्वर को	1
(ख)	प्रस्तुत काव्यांश निम्न में से किससे संबंधित नहीं है - (i) दंड-पुरस्कार से (ii) गाँव की झोपड़ियों से (iii) किसान से (iv) उपरोक्त सभी	1

(ग)	<p>कथन (A) और कथन (R) को पढ़कर उपयुक्त विकल्प का चयन कर लिखिए :</p> <p>कथन (A) कवि ने किसानों को ग्राम देवता के रूप में चित्रित किया है । कथन (R) वह अपनी मिट्टी से प्रेम करते हैं और अपने श्रम से मिट्टी में अन्न उगाते हैं।</p> <p>(i) कथन (A) सही है, किंतु कारण (R) ग़लत है। (ii) कथन (A) ग़लत है, किंतु कारण (R) सही है। (iii) कथन (A) और कारण (R) दोनों सही हैं, किंतु कारण (R), कथन (A) की सही व्याख्या नहीं है । (iv) कथन (A) और कारण (R) दोनों ही सही हैं तथा कारण (R), कथन (A) की सही व्याख्या है</p>	1
(घ)	ग्राम देवता कहाँ निवास करते हैं और कवि किसान को प्रणाम क्यों करता है?	2
(ङ)	प्रस्तुत कविता में अधखुले अंग किसके बताए गए हैं और क्यों?	2
खंड - ख (व्यावहारिक व्याकरण)		16
3	निर्देशानुसार 'रचना के आधार पर वाक्य भेद' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर लिखिए:	(4x1=4)
(क)	शाम हुई और मजदूर घर कि ओर चल दिए। (सरल वाक्य बदलिए)	1
(ख)	वे बोलते जा रहे थे और पिताजी का चेहरा गर्व से बदलता जा रहा था। (रचना के आधार पर वाक्य का भेद लिखिए)	1
(ग)	घंटी बजी, छात्र पुस्तकें लेकर कक्षा से बाहर निकले। छात्र घर चले गए। (संयुक्त वाक्य में बदलिए)	1
(घ)	<u>जब तुम जाओगे</u> तभी मैं जाऊँगा। रेखांकित अंश उपवाक्य का कौन सा भेद है?	1
(ङ)	कुछ पहाड़ी औरतें पत्थर तोड़ रही थीं (रचना के आधार पर वाक्य का भेद लिखिए)	1

4	निर्देशानुसार 'वाच्य' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर लिखिए:	(4x1=4)
(क)	अध्यापक ने आज हमें नया पाठ पढ़ाया। (कर्मवाच्य में बदलिए)	1
(ख)	गर्मियों में हम खूब नहाते हैं। (वाच्य पहचानकर भेद बताइए)	1
(ग)	सफेदपोश सज्जन सुविधा से पालथी मारे बैठे थे (वाच्य पहचानकर भेद बताइए)	1
(घ)	कर्मवाच्य में क्रिया के लिंग, वचन और पुरुष किसके अनुसार होते हैं?	1

(ड)	मैं चुप नहीं बैठ सकता। बदलिए)	(भाववाच्य में)	1
5	निर्देशानुसार 'पद परिचय' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के रेखांकित पदों का पद-परिचय लिखिए:		(4x1=4)
(क)	राजेश आज दिल्ली जाएगा।		1
(ख)	वाह! उपवन में सुंदर फूल खिले हैं।		1
(ग)	बच्चे धीरे-धीरे पढ़ रहे थे।		1
(घ)	वे बहुत अच्छे लोग हैं।		1
(ड)	शद्ध कब पद बन जाता है?		1
6	निर्देशानुसार 'अलंकार' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों की रेखांकित काव्य पंक्तियों में अलंकार पहचान कर लिखिए :		(4x1=4)
(क)	सिर फट गया उसका मानो अरुण रंग का घड़ा।		1
(ख)	सुनहु राम जेहि सिवधनु तोरा। सहसबाहु सम सो रियु मोरा।।		1
(ग)	बाण नहीं पहुँचे शरीर तक, शत्रु गिरे पहले ही भू पर।		1
(घ)	सागर के उर पर नाच -नाच करती हैं लहरें मधुर गान।		1
(ड)	प्रीति-नदी मैं पाऊँ न बोरयौ।		1
	खंड - ग (पाठ्यपुस्तक एवं पूरक पाठ्यपुस्तक)		30
7	निम्नलिखित पठित गद्यांश पर आधारित बहुविकल्पीय प्रश्नों के सर्वाधिक उपयुक्त विकल्प चुनकर लिखिए: एक संस्कृत व्यक्ति किसी नई चीज की खोज करता है, किंतु उसकी संतान को वह अपने पूर्वजों से अनायास ही प्राप्त हो जाती है। जिस व्यक्ति की बुद्धि ने अथवा उसके विवेक ने किसी भी नए तथ्य का दर्शन किया, वह व्यक्ति ही वास्तविक संस्कृत व्यक्ति है और उसकी संतान, जिसे अपने पूर्वज से वह वस्तु अनायास ही प्राप्त हो गई है, वह अपने पूर्वज की भाँति सभ्य भले ही बन जाए, संस्कृत नहीं कहला सकता। एक आधुनिक उदाहरण लें। न्यूटन ने गुरुत्वाकर्षण के सिद्धान्त का आविष्कार किया। वह संस्कृत मानव था। आज के युग का भौतिक विज्ञान का विद्यार्थी न्यूटन के गुरुत्वाकर्षण से तो परिचित है ही, लेकिन उसके साथ उसे और भी अनेक बातों का ज्ञान प्राप्त है, जिनसे शायद न्यूटन अपरिचित ही रहा। ऐसा होने पर हम आज के भौतिक विज्ञान के विद्यार्थी को न्यूटन की अपेक्षा अधिक सभ्य भले ही कह सके, परंतु न्यूटन जितना संस्कृत नहीं कह सकते।		(5x1=5)

(क)	<p>संस्कृत व्यक्ति की उपलब्धि क्या है?</p> <p>(i) अनायास ही वस्तु प्राप्त हो जाना (ii) पूर्वजों द्वारा अपरिचित होना (iii) अपने विवेक से नई चीज की खोज करना (iv) उपर्युक्त सभी</p>	1
(ख)	<p>वह व्यक्ति सभ्य कहलाता है जो -</p> <p>1. जिसने नए तथ्यों की खोज की है। 2. जिसे अपने पूर्वजों से वस्तु अनायास ही प्राप्त हुई है। 3. जिसने गुरुत्वाकर्षण की खोज की। 4. उसने अपने विवेक का प्रयोग किया है।</p> <p>(i) कथन 1,2,4 सही है। (ii) कथन 2 सही है। (iii) कथन 3 और 4 सही हैं। (iv) कथन 1 और 2 सही हैं।</p>	1
(ग)	<p>न्यूटन को संस्कृत मानव किस आधार पर कहा जा सकता है?</p> <p>(i) न्यूटन भौतिक विज्ञान को जानता था (ii) न्यूटन अनेक बातों से परिचित था। (iii) न्यूटन सभ्य दिखता था। (iv) न्यूटन ने गुरुत्वाकर्षण सिद्धांत का आविष्कार किया।</p>	1
(घ)	<p>कथन (A) आज के भौतिक विज्ञान के विद्यार्थी को सभ्य कह सकते हैं संस्कृत नहीं।</p> <p>कारण (R) विद्यार्थी ने गुरुत्वाकर्षण के सिद्धांत का आविष्कार किया।</p> <p>(i) कथन (A) और कारण (R) दोनों सही हैं तथा कारण (R), कथन (A) की सही व्याख्या करता है। (ii) कथन (A) और कारण (R) दोनों सही हैं, परंतु कारण (R), कथन (A) की सही व्याख्या नहीं करता है। (iii) कथन (A) सही है, किंतु कारण (R) गलत है। (iv) कथन (A) गलत है, किंतु कारण (R) सही है। (A) आज के भौतिक विज्ञान के विद्यार्थी को सभ्य कह सकते हैं।</p>	1

(ड)	भौतिक विज्ञान के विद्यार्थी को न्यूटन की अपेक्षा अधिक सभ्य क्यों कहा गया है ? (i) क्योंकि उसे न्यूटन के बाद की अनेक बातों का ज्ञान था । (ii) क्योंकि उसे सिद्धांतों की जानकारी नहीं थी । (iii) क्योंकि विद्यार्थी न्यूटन के गुरुत्वाकर्षण से परिचित नहीं है । (iv) क्योंकि उसे संस्कृति की पहचान थी ।	1
8	निर्धारित गद्य पाठों के आधार पर निम्नलिखित चार प्रश्नों में से किन्हीं तीन प्रश्नों के उत्तर लगभग 25-30 शब्दों में लिखिए:	(3x2=6)
(क)	महानगरों में रहने वाले लोग प्रायः “पड़ोस कल्चर” से वंचित क्यों रह जाते हैं? ‘एक कहानी यह भी’ पाठ के आधार पर स्पष्ट कीजिए।	2
(ख)	‘नेताजी का चश्मा’ पाठ में देशभक्ति की भावना पर किस प्रकार बल दिया गया है? स्पष्ट करें।	2
(ग)	‘बालगोबिन भगत’ पाठ के आधार पर बताए कि बालगोबिन भगत की दिनचर्या लोगों के आश्चर्य का विषय क्यों थी ?	2
(घ)	बिस्मिल्ला खाँ की एक संगीत साधक के रूप में क्या विशेषताएँ थीं? सोदाहरण स्पष्ट करें ।	2
9	निम्नलिखित पठित काव्यांश पर आधारित बहुविकल्पीय प्रश्नों के सर्वाधिक उपयुक्त उत्तर वाले विकल्प चुनकर लिखिए: बहसि लखन बोले मूदु बानी ।अहो मुनीसु महाभट मानी । पुनि पुनि मोहि देखाव कुठारु चहत उड़ावन फूँकि पहारु । इहाँ कुम्हड़बतिआ कोउ नाहि ।जे तरजनी देखि मरि जाहीं । देखि कुठारु सरासन बाना भैं कछु कहा सहित अभिमाना । भृगुसुत समुझि जनेउ बिलोकी ।जो कछु कहहु सहौं रिस रोकी । सुर महिसुर हरिजन अरु गाई हमरे कुल इन्ह पर न सुराई । बधे पापु अपकीरति हारें ।भारतहूँ पा परिअ तुम्हारें । कोटि कुलिस सम बचनु तुम्हारा ।ब्यर्थ धरहु धनु बान कुठारा । । जो बिलोकि अनुचित कहेउँ छमहु महामुनि धीर । सुनि सरोष भृगुबंसमनि बोले गिरा गंभीर ।	(5x1=5)
(क)	‘चहत उड़ावन फूँकि पहारु’ पंक्ति का आशय है सही विकल्प का चयन कीजिए । 1. फूँककर पहाड़ उठाना चाहते हैं । 2. फूँककर पहाड़ पर चढ़ना चाहते हैं । 3. कुठार को फूँक मारकर उड़ाना चाहते हैं ।	1

	<p>4. बाण को फूँक से उठाना चाहते हैं। कूट (i) कथन 1 सही है। (ii) कथन 2 सही है। (iii) कथन 1 और 2 सही हैं। (iv) कथन 3 और 4 सही हैं।</p>	
(ख)	<p>‘भृगुसुत’ शब्द किसके लिए प्रयुक्त हुआ है ? (i) श्री राम के लिए (ii) लक्ष्मण के लिए (iii) परशुराम के लिए (vi) वाल्मीकि के लिए</p>	1
(ग)	<p>कथन (A) लक्ष्मण जी परशुराम को ब्राह्मण जानकर उनका वध नहीं कर रहे। कारण (R) उनके कुल में किसी का वध नहीं किया जाता। (i) कथन (A) और कारण (R) दोनों सही हैं तथा कारण (R), कथन (A) की सही व्याख्या करता है। (ii) कथन (A) और कारण (R) दोनों सही हैं, परंतु कारण (R), कथन (A) की सही व्याख्या नहीं करता है। (iii) कथन (A) सही है, किंतु कारण (R) गलत है। (iv) कथन (A) गलत है, किंतु कारण (R) सही है।</p>	1
(घ)	<p>काव्यांश के अनुसार रघुकुल की मर्यादा है। (i) देवता, ब्राह्मण, हरिभक्त व गाय की रक्षा करना (ii) स्त्री का सम्मान नहीं करना (iii) लोगों पर अत्याचार करना (iv) बड़े-बुजुर्गों का सम्मान नहीं करना</p>	1
(ङ)	<p>परशुराम के वचनों की क्या विशेषता है ? सही विकल्प का चयन कीजिए। (1) वे अत्यंत मृदु वचन बोलते हैं। (2) वे अत्यंत कटु वचन बोलते हैं। (3) वे व्यर्थ ढींठे नहीं हाँकते हैं। (4) वे करोड़ों वज्रों के समान कठोर वचन बोलते हैं। कूट (i) कथन 1 सही है। (ii) कथन 1 और 2 सही हैं। (iii) कथन 3 और 4 सही हैं।</p>	1

	(iv) कथन 2,4 सही है।	
10	निर्धारित कविताओं के आधार पर निम्नलिखित चार प्रश्नों में से किन्हीं तीन प्रश्नों के उत्तर लगभग 25-30 शब्दों में लिखिए:	(3x2=6)
(क)	'अट नहीं रही है' कविता के आधार पर बताइए कि फागुन मास के आने से पेड़ों की डालियों के स्वरूप में क्या परिवर्तन दिखाई देता है?	2
(ख)	सूरदास द्वारा प्रस्तुत पदों के आधार पर गोपियों का योग साधना के प्रति दृष्टिकोण स्पष्ट कीजिए।	2
(ग)	संगतकार की आवाज में दिखाई देने वाली हिचक क्या प्रदर्शित करती है?	2
(घ)	कवि के जीवन के अनुभव ही उन्हें आत्मकथा लिखने से रोकते हैं। 'आत्मकथ्य' कविता के आधार पर उत्तर लिखें।	2
11	पूरक पाठ्य पुस्तक के पाठों पर आधारित निम्नलिखित तीन प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर लगभग 50-60 शब्दों में लिखिए:	(2x4=8)
(क)	"माता का अंचल" पाठ में ग्रामीण परिवेश का चित्रण किया गया है। ग्रामीण परिवेश और शहरी जीवन में क्या अंतर पाते हैं?	4
(ख)	पेड़, पौधे, पशु और आदमी सब अपनी-अपनी लय, ताल और गति में हैं। हमारी पीढ़ी ने प्रकृति की इस लय, ताल और गति से खिलवाड़ कर अक्षम्य अपराध किया है। 'साना-साना हाथ जोड़ि' पाठ के आधार पर बताइए कि इस अक्षम्य अपराध का प्रायश्चित्त मनुष्य किस प्रकार कर सकता है?	4
(ग)	'मैं क्यों लिखता हूँ' पाठ के आधार पर लेखक ने अपने आपको हिरोशिमा के विस्फोट का भोक्ता कब और किस तरह महसूस किया?	4

	खंड-घ (रचनात्मक लेखन)	20
12	<p>निम्नलिखित तीन विषयों में से किसी एक विषय पर संकेत बिन्दुओं के आधार पर लगभग 120 शब्दों में एक अनुच्छेद लिखिए।</p> <p>(क) प्राकृतिक आपदाएँ संकेत बिंदु</p> <ul style="list-style-type: none"> • भूमिका • प्राकृतिक आपदाओं के दुष्प्रभाव • प्राकृतिक आपदाओं के कारण • बचाव के उपाय <p>(ख) सड़क सुरक्षा- जीवन रक्षा</p> <p style="text-align: center;">संकेत बिंदु :</p> <ul style="list-style-type: none"> • यातायात के नियमों के पालन का महत्त्व • नियम का पालन न करने से • नियम पालन की उपयोगिता • सड़क सुरक्षा के लिए बनाए गए नियमों का पालन करने का संकल्प • <p>(ग) इंटरनेट की दुनिया</p> <p style="text-align: center;">संकेत बिंदु:</p> <ul style="list-style-type: none"> • भूमिका • भारत एवं विश्व में इंटरनेट की स्थिति • इंटरनेट के लाभ • इंटरनेट के दुष्परिणाम 	(1x6=6)
13	<p>(क) आप स्वाति गाँधी /अनूप गाँधी हैं। समाचार-पत्रों में विज्ञापनों की भरमार को कम करने और समसामयिक विषयों पर लेखन की आवश्यकता को दर्शाते हुए दैनिक जागरण समाचार-पत्र के संपादक को अनुरोध करते हुए 100 शब्दों में पत्र लिखिए।</p> <p style="text-align: center;">अथवा</p> <p>(ख) आपका नाम राजसिंह / राधा राजपूत है। आप अपने विद्यालय के छात्र-छात्राओं के साथ बाढ़ पीड़ित लोगों की सेवा के लिए जाना चाहते हो। इस कार्य हेतु अनुमति माँगते हुए अपने पिता को 100 शब्दों में पत्र लिखिए।</p>	(1x5=5)

14	<p>क) आपका नाम आशीष शर्मा/आशा शर्मा है। आप बी.एड. कर चुके हैं विद्यास्थली स्कूल में विज्ञान शिक्षक का पद रिक्त है इसके लिए संक्षिप्त स्ववृत्त (बायोडाटा) लगभग 80 शब्दों में तैयार कीजिए </p> <p style="text-align: center;">अथवा</p> <p>(ख) आप मेधावी / माधव हैं। आपका ए.टी.एम.कार्ड खो गया है उसकी सूचना देते हुए 'नेशनल बैंक' के शाखा प्रबंधक को लगभग 80 शब्दों में एक ई-मेल लिखिए।</p>	(1x5=5)
15	<p>(क) प्रदूषण से बचने के लिए पर्यावरण विभाग की ओर से जनहित में जारी एक आकर्षक विज्ञापन लगभग 40 शब्दों में तैयार कीजिए </p> <p style="text-align: center;">अथवा</p> <p>(ख) आपके छोटे भाई ने एक नया घर खरीदा है, जिसकी बधाई स्वरूप एक संदेश 40 शब्दों में लिखिए ।</p>	(1x4=4)

PRE-BOARD EXAMINATION – 2025-26 / पूर्व-परिषदीय परीक्षा - 2025-26

Class – XII / कक्षा - - XII

Subject – Economics (030) / विषय - अर्थशास्त्र (030)

Time : 3 hrs

समय - तीन घंटे

MM – 80

पूर्णांक - 80

General Instructions :

Read the following instructions carefully and strictly follow them :

- I. This question paper contains 34 questions. All questions are compulsory.
- II. This question paper contains two sections : Section A – Macro Economics Section B – Indian Economic Development
- III. This paper contains 20 Multiple Choice Questions Type questions of 1 mark each.
- IV. This paper contains 4 Short Answer Questions Type -I questions of 3 marks each to be answered in 60 to 80 words.
- V. This paper contains 6 Short Answer Questions Type -II questions of 4 marks each to be answered in 80 to 100 words.
- VI. This paper contains 4 Long Answer Questions Type questions of 6 marks each to be answered in 100 to 150 words.
- VII. Attempt all parts of a question together.

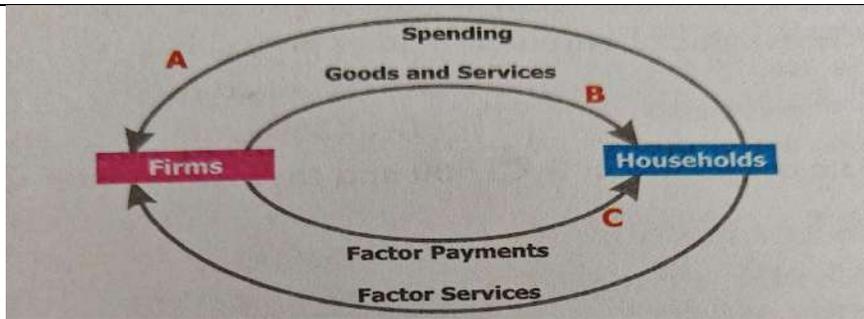
सामान्य निर्देश :

निम्नलिखित निर्देशों को बहुत सावधानी से पढ़ें और उनका सख्ती से पालन कीजिये :

- I. इस प्रश्न पत्र में 34 प्रश्न हैं | सभी प्रश्न अनिवार्य हैं |
- II. यह प्रश्न पत्र दो खण्डों में विभाजित है : खंड क - समष्टि अर्थशास्त्र , खंड ख - भारतीय आर्थिक विकास
- III. इस प्रश्नपत्र में एक-एक अंक के 20 बहुविकल्पीय प्रश्न हैं |
- IV. इस प्रश्नपत्र में तीन - तीन अंकों के 4 लघु उत्तरीय प्रकार-I के प्रश्न हैं जिनके उत्तर 60 से 80 शब्दों में लिखे जाने चाहिए |
- V. इस प्रश्नपत्र में चार - चार अंकों के 6 लघु उत्तरीय प्रकार-II के प्रश्न हैं जिनके उत्तर 80 से 100 शब्दों में लिखे जाने चाहिए |
- VI. इस प्रश्नपत्र में छः - छः अंकों के 4 दीर्घ उत्तरीय प्रकार के प्रश्न हैं जिनके उत्तर 100 से 150 शब्दों में लिखे जाने चाहिए |
- VII. प्रत्येक प्रश्न के सभी भागों के उत्तर एक साथ लिखे जाने चाहिए

Q.No.	Section A – Macro Economics खंड अ - समष्टि अर्थशास्त्र	Marks
1	<p>Read the following statements carefully: Statement 1: The consumption curve is an upward sloping straight line curve due to the direct relationship between income and consumption and the consumption of constant marginal propensity to consume. Statement 2: Aggregate demand curve and consumption curve are parallel to each other. in the light of the given statements, choose the correct alternative from the following:</p> <p>a) Both the statements are true b) Both the statements are false c) Statement 1 is true and statement 2 is false. d) Statement 2 is true and statement 1 is false.</p> <p>निम्नलिखित कथनों को ध्यान से पढ़ें: कथन 1: उपभोग वक्र आय और उपभोग और निरंतर सीमांत उपभोग प्रवृत्ति के उपभोग के बीच सीधे संबंध के कारण एक ऊपर की ओर झुका हुआ सीधी रेखा वक्र है। कथन 2: समग्र मांग वक्र और उपभोग वक्र एक दूसरे के समानांतर हैं दिए गए कथनों के आलोक में निम्नलिखित में से सही विकल्प चुनें: क) दोनों कथन सत्य है । ख) दोनों कथन असत्य हैंs ग) कथन1 सत्य है और कथन 2 गलत है । घ) कथन 2 सत्य है और कथन 1 गलत है ।</p>	1
2	<p>The Nominal Gross Domestic Product is estimated to stand at ₹ 288 lakh crore. The corresponding price index is 120 in the same year. On the basis of given data the value of Real GDP would be –</p> <p>a) 220 b) 240 c) 260 d) 280</p> <p>नाममात्र सकल घरेलू उत्पाद 288 लाख करोड़ रुपये रहने का अनुमान है। उसी वर्ष में संगत मूल्य सूचकांक 120 है। दिए गए आंकड़ों के आधार पर वास्तविक जीडीपी का मूल्य होगा -</p> <p>क) 220 ख) 240 ग) 260 घ) 280</p>	1

3	<p>“The value of all goods and services can be expressed in monetary units.” On the basis of given statement, identify the function performed by money:</p> <p>a) Medium of exchange b) Store of value c) Unit of account d) Standard of deferred payments</p> <p>"सभी वस्तुओं और सेवाओं का मूल्य मौद्रिक इकाइयों में व्यक्त किया जा सकता है।" दिए गए कथन के आधार पर, धन द्वारा किए जाने वाले कार्य की पहचान करें:</p> <p>क) विनिमय का माध्यम ख) मूल्य का भंडार ग) खाते की इकाई घ) आस्थगित भुगतान का मानक</p>	1
4	<p>Read the following statements carefully:</p> <p>Statement 1: If the receipts and payments in the current account are equal to each other it indicates the situation of current account surplus.</p> <p>Statement2: A surplus current account means the nation is lender to other countries and a deficit current account means the nation is a borrower from other countries.</p> <p>a) Both the statements are true b) Both the statements are false c) Statement 1 is true and statement 2 is false. d) Statement 2 is true and statement 1 is false.</p> <p>निम्नलिखित कथनों को ध्यान से पढ़ें:</p> <p>कथन यदि चालू खाते में प्राप्तियाँ और भुगतान एक दूसरे के बराबर हैं तो यह चालू खाता : अधिशेष की स्थिति को इंगित करता है।</p> <p>कथन 2: अधिशेष चालू खाते का अर्थ है कि राष्ट्र अन्य देशों को ऋणदाता है और घाटे के चालू खाते का अर्थ है कि राष्ट्र अन्य देशों से उधारकर्ता है।</p> <p>क) दोनों कथन सत्य हैं ख) दोनों कथन गलत हैं ग) कथन 1 सत्य है और कथन 2 गलत है। घ) कथन 2 सत्य है और कथन 1 गलत है।</p>	1
5	<p>Which of the following combinations of the flows are equal in the context of a two-sector economy?</p> <p>दो-क्षेत्रीय अर्थव्यवस्था के संदर्भ में प्रवाह का निम्नलिखित में से कौन सा संयोजन समान है?</p>	1



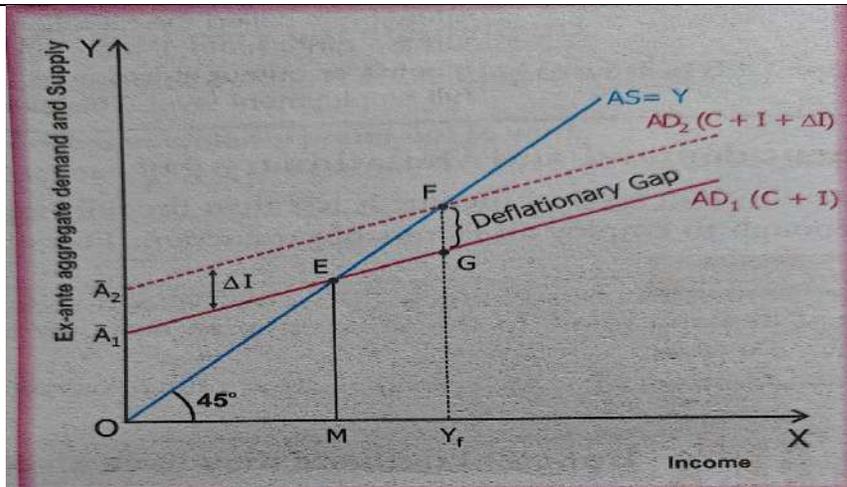
- a) A and B
- b) A and C
- c) B and C
- d) A, B and C
- क) ए और बी
- ख) ए और सी
- ग) बी और सी
- घ) ए, बी और सी

6	<p>Inflationary gap refers to the gap by which ----- falls short of the Aggregate Supply required to establish full employment equilibrium. (choose the correct option to fill up the blank)</p> <ul style="list-style-type: none"> a) Ex-ante aggregate Demand b) Ex-ante aggregate Supply c) Ex-post aggregate Demand d) Ex-post aggregate Supply <p>मुद्रास्फीति अंतर उस अंतर को संदर्भित करता है जिसके द्वारा पूर्ण रोजगार संतुलन स्थापित करने के लिए आवश्यक समग्र आपूर्ति----- से कम हो जाता है। (रिक्त स्थान को भरने के लिए सही विकल्प चुनें)</p> <ul style="list-style-type: none"> क) नियोजित समग्र मांग ख) नियोजित समग्र आपूर्ति ग) वास्तविक समग्र मांग घ) वास्तविक समग्र आपूर्ति 	1
7	<p>In a simple economy, suppose there are only two producers – the farmers who produce wheat and the bakers, i.e. the bread makers. The total value of wheat produced by the farmers is ₹ 100 for which they do not need any input other than human labour. Out of this the farmers have sold ₹ 50 worth of wheat to the bakers who have used it completely during the year and have produced ₹ 200 worth of bread. The aggregate value of final goods produced by this simple economy would be:</p> <ul style="list-style-type: none"> a) ₹300 b) ₹250 c) ₹350 d) ₹200 	1

	<p>एक साधारण अर्थव्यवस्था में, मान लीजिए कि केवल दो उत्पादक हैं - किसान जो गेहूं पैदा करते हैं और बेकर्स, यानी रोटी बनाने वाले। किसानों द्वारा उत्पादित गेहूं का कुल मूल्य ₹100 है जिसके लिए उन्हें मानव श्रम के अलावा किसी अन्य इनपुट की आवश्यकता नहीं है। इसमें से किसानों ने ₹50 मूल्य का गेहूं बेकर्स को बेच दिया है जिन्होंने वर्ष के दौरान इसका पूरा उपयोग किया है और ₹200 मूल्य की ब्रेड का उत्पादन किया है। इस सरल अर्थव्यवस्था द्वारा उत्पादित अंतिम वस्तुओं का कुल मूल्य होगा:</p> <p>क) ₹300 ख) ₹250 ग) ₹350 घ) ₹200</p>													
8	<p>Complete the table: If the initial deposit in an economy is ₹4000 crore</p> <table border="1"> <thead> <tr> <th>LRR</th> <th>Credit Creation</th> </tr> </thead> <tbody> <tr> <td>5%</td> <td>(i)</td> </tr> <tr> <td>8%</td> <td>(ii)</td> </tr> </tbody> </table> <p>a) (i) 50000 (ii) 80000 b) (i) 40000 (ii) 20000 c) (i) 80000 (ii) 50000 d) (i) 20000 (ii) 40000</p> <p>तालिका पूरा करें: यदि किसी अर्थव्यवस्था में प्रारंभिक जमा राशि ₹4000 करोड़ है</p> <table border="1"> <thead> <tr> <th>एल०आर०आर०</th> <th>साख निर्माण</th> </tr> </thead> <tbody> <tr> <td>5%</td> <td>(i)</td> </tr> <tr> <td>8%</td> <td>(ii)</td> </tr> </tbody> </table> <p>क) (i) 50000 (ii) 80000 ख) (i) 40000 (ii) 20000 ग) (i) 80000 (ii) 50000 घ) (i) 20000 (ii) 40000</p>	LRR	Credit Creation	5%	(i)	8%	(ii)	एल०आर०आर०	साख निर्माण	5%	(i)	8%	(ii)	1
LRR	Credit Creation													
5%	(i)													
8%	(ii)													
एल०आर०आर०	साख निर्माण													
5%	(i)													
8%	(ii)													
9	<p>Assertion (A): Export and import of machines are recorded in capital account of BOP account. Reason (R): Export and import of machines are the export and import of goods. Therefore, they are recorded in the current account of the balance of payment account.</p> <p>a) Both Assertion (A) and Reason (R) are true, and Reason (R) is the correct explanation of the Assertion (A) b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A)</p>	1												

	<p>c) Assertion (A) is true but Reason (R) is false d) Assertion (A) is false but Reason (R) is true</p> <p>अभिकथन : (ए) मशीनों का निर्यात और आयात बीओपी खाते के पूंजी खाते में दर्ज किया जाता है कारण R) : मशीनों का निर्यात और आयात वस्तुओं का निर्यात और आयात है। इसलिए, उन्हें भुगतान शेष खाते के चालू खाते में दर्ज किया जाता है।</p> <p>क) दोनों कथन सत्य हैं तथा कारण (आर) सुकथन की सही व्याख्या करता है। ख) दोनों कथन सत्य हैं तथा कारण (आर) सुकथन की सही व्याख्या नहीं करता है। ग) अभिकथन सही है परन्तु कारण गलत है घ) अभिकथन गलत है परन्तु कारण सही है</p>																																											
10	<p>The present governor of Reserve Bank of India (RBI) is-</p> <p>a) Urjit R Patel b) Bimal Jalan c) Raghuram G Rajan d) Sanjay Malhotra</p> <p>भारतीय रिजर्व बैंक (RBI) के वर्तमान गवर्नर हैं-</p> <p>a) उर्जित आर पटेल b) बिमल जालान c) रघुराम जी राजन d) संजय मल्होत्रा</p>	1																																										
11	<p>On the basis of data given below, estimate the value of Gross National Product at factor cost (GNP_{FC})</p> <table border="1"> <thead> <tr> <th>S.N.</th> <th>Items</th> <th>₹ in crore</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Wages and Salaries</td> <td>2000</td> </tr> <tr> <td>2</td> <td>Rent and Interest</td> <td>700</td> </tr> <tr> <td>3</td> <td>Corporate tax</td> <td>500</td> </tr> <tr> <td>4</td> <td>Undistributed profit</td> <td>300</td> </tr> <tr> <td>5</td> <td>Consumption of fixed capital</td> <td>200</td> </tr> <tr> <td>6</td> <td>Dividend</td> <td>150</td> </tr> <tr> <td>7</td> <td>Net factor Income from abroad</td> <td>(-)50</td> </tr> </tbody> </table> <p>नीचे दिए गए आंकड़ों के आधार पर, कारक लागत (जीएनपी एफसी) पर सकल राष्ट्रीय उत्पाद के मूल्य का अनुमान लगाएं</p> <table border="1"> <thead> <tr> <th>क्रम सं</th> <th>मद</th> <th>₹ करोड़ में</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>वेतन और मज़दूरी</td> <td>2000</td> </tr> <tr> <td>2</td> <td>किराया और ब्याज</td> <td>700</td> </tr> <tr> <td>3</td> <td>कॉर्पोरेट टैक्स</td> <td>500</td> </tr> <tr> <td>4</td> <td>अवितरित लाभ</td> <td>300</td> </tr> <tr> <td>5</td> <td>स्थायी पूंजी की खपत</td> <td>200</td> </tr> </tbody> </table>	S.N.	Items	₹ in crore	1	Wages and Salaries	2000	2	Rent and Interest	700	3	Corporate tax	500	4	Undistributed profit	300	5	Consumption of fixed capital	200	6	Dividend	150	7	Net factor Income from abroad	(-)50	क्रम सं	मद	₹ करोड़ में	1	वेतन और मज़दूरी	2000	2	किराया और ब्याज	700	3	कॉर्पोरेट टैक्स	500	4	अवितरित लाभ	300	5	स्थायी पूंजी की खपत	200	3
S.N.	Items	₹ in crore																																										
1	Wages and Salaries	2000																																										
2	Rent and Interest	700																																										
3	Corporate tax	500																																										
4	Undistributed profit	300																																										
5	Consumption of fixed capital	200																																										
6	Dividend	150																																										
7	Net factor Income from abroad	(-)50																																										
क्रम सं	मद	₹ करोड़ में																																										
1	वेतन और मज़दूरी	2000																																										
2	किराया और ब्याज	700																																										
3	कॉर्पोरेट टैक्स	500																																										
4	अवितरित लाभ	300																																										
5	स्थायी पूंजी की खपत	200																																										

	<table border="1"> <tr> <td>6</td> <td>लाभांश</td> <td>150</td> </tr> <tr> <td>7</td> <td>विदेश से शुद्ध कारक आय</td> <td>(-)50</td> </tr> </table>	6	लाभांश	150	7	विदेश से शुद्ध कारक आय	(-)50	
6	लाभांश	150						
7	विदेश से शुद्ध कारक आय	(-)50						
12	<p>“An increase in credit creation capacity of commercial banks has a direct impact on the money supply in an economy” Discuss the given statement</p> <p>OR</p> <p>If the total deposits created by commercial banks is ₹400 crore and Legal Reserve Ratio (LRR) is 12.5% then calculate the amount of initial deposits with the banks.</p> <p>"वाणिज्यिक बैंकों की ऋण निर्माण क्षमता में वृद्धि का अर्थव्यवस्था में मुद्रा आपूर्ति पर सीधा प्रभाव पड़ता है" दिए गए कथन पर चर्चा करें</p> <p>अथवा</p> <p>यदि वाणिज्यिक बैंकों द्वारा बनाई गई कुल जमा राशि ₹400 करोड़ है और कानूनी आरक्षित अनुपात (एलआरआर) 12.5% है तो बैंकों के पास प्रारंभिक जमा राशि की गणना करें।</p>	3						
13	<p>“GDP as an index of welfare may understate or overstate welfare.” Explain the statement using examples of a positive and a negative externality.</p> <p>OR</p> <p>As per the Economic Times report, dated April 11 , 2025</p> <p>“Electric Vehicle sales cross 10 Lakh mark in financial year 2024-25.”</p> <p>Analyse the likely impact of this news on GDP and welfare</p> <p>"कल्याण के सूचकांक के रूप में सकल घरेलू उत्पाद कल्याण को कम या ज़्यादा दिखा सकता है।" सकारात्मक और नकारात्मक बाह्यता के उदाहरणों का उपयोग करके कथन की व्याख्या करें।</p> <p>अथवा</p> <p>11 अप्रैल, 2025 की इकोनॉमिक टाइम्स की रिपोर्ट के अनुसार</p> <p>"वित्तीय वर्ष 2024-25 में इलेक्ट्रिक वाहन की बिक्री 10 लाख का आंकड़ा पार कर गई।"</p> <p>इस समाचार के सकल घरेलू उत्पाद और कल्याण पर संभावित प्रभाव का विश्लेषण करें</p>	1x4						
14	<p>‘Foreign Portfolio Investment (FPI) witnessed a sharp turnaround during 2023-24 with net FPI inflows of USD 32.4 billion;</p> <p>In which sub account and on which side of the Balance Of Payment accounts the above transaction will be recorded? Give reasons in support of your answer.</p> <p>विदेशी पोर्टफोलियो निवेश (एफपीआई) में 2023-24 के दौरान 32.4 बिलियन अमेरिकी डॉलर के शुद्ध एफपीआई प्रवाह के साथ तेज बदलाव देखा गया;</p> <p>उपरोक्त लेनदेन किस उप खाते में और भुगतान संतुलन खाते के किस तरफ दर्ज किया जाएगा? अपने उत्तर के समर्थन में कारण दीजिये।</p>	4						
15	<p>Refer the given image carefully:</p> <p>दी गई छवि को ध्यान से देखें:</p>	4						



Explain any two measures which a government can take to resolve the indicated Macroeconomic issue.

किन्हीं दो उपायों की व्याख्या करें जो सरकार संकेतित व्यापक आर्थिक मुद्दे को हल करने के लिए उठा सकती है।

16

A) If in an economy:
Marginal Propensity to consume (MPC) = 0.8
Change in initial investment (ΔI) = ₹15000 crores
Find the value of:

- A) (i) Investment Multiplier (K) (ii) Change in final income (ΔY)
B) Define the relation between MPC and MPS

OR

- A) "The government has raised the exemption limit for the payment of income tax from ₹ 7 lakh to ₹ 12 lakh."
If the situation of deficient demand is prevailing in the economy, what will be the impact of this action taken by the government?
B) State the impact of excess demand under the Keynesian theory of employment, in an economy.

अ) यदि किसी अर्थव्यवस्था में:

सीमांत उपभोग प्रवृत्ति (एमपीसी) = 0.8

प्रारंभिक निवेश में परिवर्तन (ΔI) = ₹15000 करोड़

इसका मान ज्ञात कीजिए :

- ए) (i) निवेश गुणक (के) (ii) अंतिम आय में परिवर्तन (ΔY)
ब) एमपीसी और एमपीएस के बीच संबंध को परिभाषित करें

अथवा

ए) "सरकार ने आयकर के भुगतान के लिए छूट की सीमा ₹ 7 लाख से बढ़ाकर ₹ 12 लाख कर दी है।"

4+2

3+3

	<p>अगर अर्थव्यवस्था में माँग में कमी की स्थिति बनी हुई है तो सरकार द्वारा उठाए गए इस कदम का क्या असर होगा?</p> <p>बी) कीन्स के रोजगार सिद्धान्त के अनुसार अतिरिक्त माँग का एक अर्थव्यवस्था पर पड़ने वाले प्रभाव में को स्पष्ट कीजिए।</p>	
17	<p>Read the following news article and answer the questions that follows :</p> <p>New Delhi: the government on Monday provided a list of 36 public sector companies that the finance ministry has decided “in principle” to disinvest and privatise. “The shipping corporation of India, various units of India tourism Development corporation, Hindustan antibiotics, Bengal chemicals and pharmaceutical, Bharat petroleum corporation limited, Alloy Steel plant Durgapur, Salem Steel plant, Bhadravati Steel plant units of Steel authority of India limited, IDBI Bank among the list of 36 PSUs that the government has furnished in Lok Sabha.</p> <p>Minister of state for finance Bhagwat Kishan Rao Karad said in a written reply to the house that, “the government since 2016 has given “in principle” approval for strategic disinvestment of 36 CPSEs and/or subsidiaries/units/joint ventures of CPSEs and banks list of which is annexed. The execution and outcome of disinvestment transactions inter alia depends on the prevailing market conditions and bidders’ interest”</p> <p>He was replying to a question on “the details of the public sector enterprises banks and financial institutions that have been enlisted for disinvestment and privatization during the next three financial years and the details of the target amount set to be realized through the said process” asked by Trinamool Congress MP Mala Roy.</p> <p>According to the list of CPSEs/ subsidiaries/ units/ joint ventures of CPSEs (Central public sector enterprises) and banks for which the government has given ‘in principle’ approval for 36 PSUs for strategic disinvestment since 2016.</p> <p>Source: - IDBI bank, BPCL among 36 PSUs to get ‘in Principle’ nod for Disinvestment – Times of India – Dec. 13, 2021</p> <p>i) What type of expenditure or receipt discussed in the above article? Explain.</p> <p>ii) What objective of the government budget is being accomplished through the expenditure or receipt mentioned in the above article?</p> <p>निम्नलिखित समाचार लेख पढ़ें और निम्नलिखित प्रश्नों के उत्तर दें:</p> <p>नई दिल्ली: सरकार ने सोमवार को सार्वजनिक क्षेत्र की 36 कंपनियों की एक सूची प्रदान की, जिनका वित्त मंत्रालय ने "सैद्धांतिक रूप से" विनिवेश और निजीकरण करने का निर्णय लिया है।</p> <p>“भारत की शिपिंग कॉर्पोरेशन, भारत पर्यटन विकास निगम की विभिन्न इकाइयाँ, हिंदुस्तान एंटीबायोटिक्स, बंगाल केमिकल्स एंड फार्मास्युटिकल, भारत पेट्रोलियम कॉर्पोरेशन लिमिटेड, एलॉय स्टील प्लांट दुर्गापुर, सेलम स्टील प्लांट, स्टील अथॉरिटी ऑफ इंडिया लिमिटेड की भद्रावती स्टील प्लांट इकाइयाँ, आईडीबीआई बैंक उन 36 सार्वजनिक उपक्रमों की सूची में शामिल हैं, जिन्हें सरकार ने लोकसभा में प्रस्तुत किया है।</p>	3+3

	<p>वित्त राज्य मंत्री भागवत किशन राव कराड ने सदन को एक लिखित उत्तर में कहा कि, "2016 से सरकार ने 36 सीपीएसई और/या सहायक कंपनियों/इकाइयों/सीपीएसई और बैंकों के संयुक्त उद्यमों के रणनीतिक विनिवेश के लिए "सैद्धांतिक" मंजूरी दे दी है, जिनकी सूची संलग्न है। विनिवेश लेनदेन का निष्पादन और परिणाम अन्य बातों के साथ-साथ मौजूदा बाजार स्थितियों और बोलीदाताओं के हित पर निर्भर करता है।</p> <p>वह "अगले तीन वित्तीय वर्षों के दौरान विनिवेश और निजीकरण के लिए सूचीबद्ध किए गए सार्वजनिक क्षेत्र के उद्यमों बैंकों और वित्तीय संस्थानों का विवरण और उक्त प्रक्रिया के माध्यम से प्राप्त की जाने वाली लक्ष्य राशि का विवरण" पर एक सवाल का जवाब दे रहे थे, जो कि तृणमूल कांग्रेस सांसद माला राँय ने पूछा था।</p> <p>CPSEs/सहायक कंपनियों/इकाइयों/CPSEs (केंद्रीय सार्वजनिक क्षेत्र के उद्यम) और बैंकों की सूची के अनुसार, जिसके लिए सरकार ने 2016 से रणनीतिक विनिवेश के लिए 36 PSUs को 'सैद्धांतिक' मंजूरी दे दी है।</p> <p><i>स्रोत: - आईडीबीआई बैंक, बीपीसीएल 36 में से पीएसयू को 'सैद्धांतिक' मंजूरी मिलेगी विनिवेश - टाइम्स ऑफ इंडिया - 13 दिसंबर, 2021</i></p> <p>i) उपरोक्त लेख में किस प्रकार के व्यय या प्राप्ति की चर्चा की गई है? व्याख्या करना।</p> <p>ii) उपरोक्त लेख में उल्लिखित व्यय या प्राप्ति से सरकारी बजट का कौन सा उद्देश्य पूरा हो रहा है?</p>	
	<p>Section B – Indian Economic Development</p> <p>खंड ब – भारतीय आर्थिक विकास</p>	
18	<p>The new economic policy consisted of wide-ranging economic reforms and policy measures that can broadly be classified into stabilization measures and structural reform measures.</p> <p>Which of the following can be classified as a stabilization measure?</p> <p>a) In 1991, the rupee was devalued against foreign currencies.</p> <p>b) Import licensing was abolished except for hazardous industries.</p> <p>c) Industrial licensing was abolished for almost all but product categories.</p> <p>d) Areas reserved for the public sector were narrowed down from 17 to 8</p> <p>नई आर्थिक नीति में व्यापक आर्थिक सुधार और नीतिगत उपाय शामिल थे जिन्हें मोटे तौर पर स्थिरीकरण उपायों और संरचनात्मक सुधार उपायों में वर्गीकृत किया जा सकता है। निम्नलिखित में से किसे स्थिरीकरण उपाय के रूप में वर्गीकृत किया जा सकता है?</p> <p>क) 1991 में, विदेशी मुद्राओं के मुकाबले रुपये का अवमूल्यन किया गया था।</p> <p>ख) खतरनाक उद्योगों को छोड़कर आयात लाइसेंसिंग समाप्त कर दी गई।</p> <p>ग) उत्पाद श्रेणियों को छोड़कर लगभग सभी के लिए औद्योगिक लाइसेंसिंग समाप्त कर दी गई।</p> <p>घ) सार्वजनिक क्षेत्र के लिए आरक्षित क्षेत्रों को 17 से घटाकर 8 कर दिया गया</p>	1

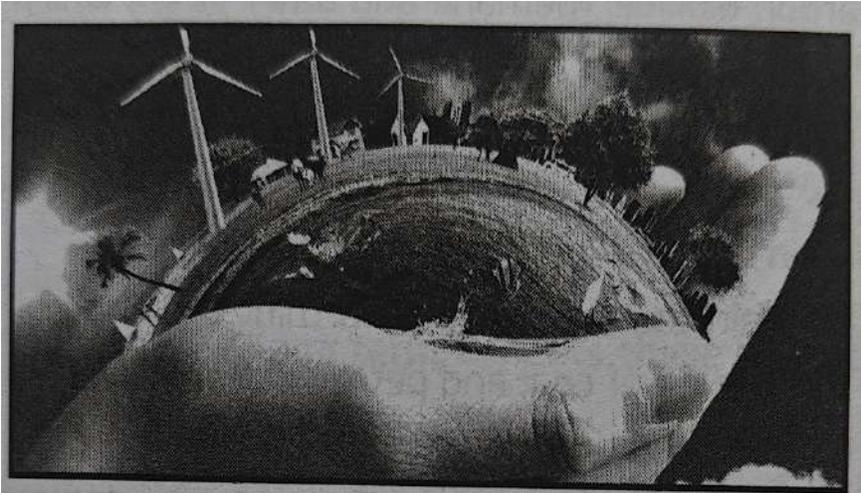
19	<p>Daccal muslin is also known as - (a) Malmal Shahi (b) Malmal Khas (c) Both of these (d) None of these</p> <p>ढाकाई मलमल को इस नाम से भी जाना जाता है - क) मलमल शाही ख) मलमल खास ग) ये दोनों घ) इनमें से कोई नहीं</p>	1
20	<p>Ms Ramanpreet has started a new business venture; she intends to spend a huge amount towards 'on - the - job training' of her workers before putting them to work. It exhibits the right step in the direction of Human Capital Formation. Spot which of the following does not directly contribute to the process of Human Capital Formation by Ms Ramanpreet: a) Adds skill and expertise b) Improves efficiency c) Ensures gender equity d) Increases output productivity</p> <p>सुश्री रमनप्रीत ने एक नया व्यवसाय उद्यम शुरू किया है; वह अपने कर्मचारियों को काम पर लगाने से पहले उनके 'ऑन-द-जॉब प्रशिक्षण' पर एक बड़ी राशि खर्च करने का इरादा रखती है। यह मानव पूंजी निर्माण की दिशा में सही कदम को दर्शाता है। सुश्री रमनप्रीत द्वारा बताया गया है कि निम्नलिखित में से कौन सा मानव पूंजी निर्माण की प्रक्रिया में सीधे योगदान नहीं देता है: क) कौशल और विशेषज्ञता जोड़ता है ख) दक्षता में सुधार करता है ग) लैंगिक समानता सुनिश्चित करता है घ) आउटपुट उत्पादकता बढ़ाता है</p>	1
21	<p>Read the following statements Assertion (A) and Reason (R). Choose one of correct alternatives given below: Assertion (A) : Since the default rate of farm loans have become chronically high due to multiple reasons, the rural banks are facing a lot of cash crunch. Reason (R) : Due to lack of proper storage facilities a lot of farm produce is wasted. Alternatives: a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A) b) Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion</p>	1

	<p>c) Assertion (A) is true but Reason (R) is false. d) Assertion (A) is false but Reason (R) is true.</p> <p>अभिकथन : (ए) चूंकि कई कारणों से कृषि ऋणों की डिफॉल्ट दर काफी उंची हो गई है, इसलिए ग्रामीण बैंकों को नकदी की भारी कमी का सामना करना पड़ रहा है।</p> <p>कारण R) : उचित भंडारण सुविधाओं के अभाव के कारण बहुत सारी कृषि उपज बर्बाद हो जाती है।</p> <p>क) दोनों कथन सत्य है तथा कारण (आर) सुकथन की सही व्याख्या करता है । ख) दोनों कथन सत्य है तथा कारण (आर) सुकथन की सही व्याख्या नहीं करता है । ग) अभिकथन सही है परन्तु कारण गलत है घ) अभिकथन गलत है परन्तु कारण सही है</p>	
22	<p>..... Are hired on a permanent basis and also get social security benefits. (Choose the correct option to fill up the blank)</p> <p>a) Casual workers b) Self-employed workers c) Both a and b d) Regular workers</p> <p>..... इन्हें स्थायी आधार पर काम पर रखा जाता है और सामाजिक सुरक्षा लाभ भी मिलता है।</p> <p>(रिक्त स्थान को भरने के लिए सही विकल्प चुनें)</p> <p>क) आकस्मिक श्रमिक बी) स्व-रोज़गार श्रमिक ग) ए और बी दोनों घ) नियमित कर्मचारी</p>	1
23	<p>Look at the picture given below and answer the question that follow:</p>  <p>Observe the Pie charts and identify the major source of livelihood for both men and women.</p> <p>a) Casual wage labourers b) Self employed c) Hired workers d) Regular salaried employees</p>	1

	<p>पाई चार्ट का अवलोकन करें और पुरुषों और महिलाओं दोनों के लिए आजीविका के प्रमुख स्रोत की पहचान करें।</p> <p>क) आकस्मिक दिहाड़ी मजदूर ख) स्वरोजगार ग) किराये पर लिए गए कर्मचारी घ) नियमित वेतनभोगी कर्मचारी</p>																	
24	<p>..... is not a cause for environmental degradation. (Choose the correct option to fill up the blanks)</p> <p>a) Waste management b) Deforestation c) Global warming d) Guarding green cover</p> <p>..... पर्यावरणीय क्षरण का कारण नहीं है। (रिक्त स्थान को भरने के लिए सही विकल्प चुनें)</p> <p>क) अपशिष्ट प्रबंधन ख) वनों की कटाई ग) ग्लोबल वार्मिंग घ) हरित आवरण की रक्षा करना</p>																	
25	<p>Identify the correct sequence of alternatives given in column (II) by matching them with respective items in column (I):</p> <table border="1"> <thead> <tr> <th>Column I</th> <th>Column II</th> </tr> </thead> <tbody> <tr> <td>A. Horticultural crops</td> <td>i) Sustains soil fertility</td> </tr> <tr> <td>B. Short term credit</td> <td>ii) Shift from single cropping system to multi-cropping system</td> </tr> <tr> <td>C. Diversification of crop production</td> <td>iii) Purchase of inputs</td> </tr> <tr> <td>D. Organic farming</td> <td>iv) Fruits, vegetables and flowers</td> </tr> </tbody> </table> <p>a) A- (iii), B – (iv), C – (i), D – (ii) b) A- (i), B – (iv), C – (iii), D – (ii) c) A- (ii), B – (iii), C – (iv), D – (i) d) A- (iv), B – (iii), C – (ii), D – (i)</p> <p>कॉलम (I) में संबंधित वस्तुओं के साथ मिलान करके कॉलम (II) में दिए गए विकल्पों के सही क्रम को पहचानें:</p> <table border="1"> <thead> <tr> <th>Column I</th> <th>Column II</th> </tr> </thead> <tbody> <tr> <td>ए. बागवानी फसलें</td> <td>i) मिट्टी की उर्वरता बनाए रखती है</td> </tr> <tr> <td>बी. अल्पावधि ऋण</td> <td>ii) एकल फसल प्रणाली से बहु-फसल प्रणाली में बदलाव</td> </tr> </tbody> </table>	Column I	Column II	A. Horticultural crops	i) Sustains soil fertility	B. Short term credit	ii) Shift from single cropping system to multi-cropping system	C. Diversification of crop production	iii) Purchase of inputs	D. Organic farming	iv) Fruits, vegetables and flowers	Column I	Column II	ए. बागवानी फसलें	i) मिट्टी की उर्वरता बनाए रखती है	बी. अल्पावधि ऋण	ii) एकल फसल प्रणाली से बहु-फसल प्रणाली में बदलाव	1
Column I	Column II																	
A. Horticultural crops	i) Sustains soil fertility																	
B. Short term credit	ii) Shift from single cropping system to multi-cropping system																	
C. Diversification of crop production	iii) Purchase of inputs																	
D. Organic farming	iv) Fruits, vegetables and flowers																	
Column I	Column II																	
ए. बागवानी फसलें	i) मिट्टी की उर्वरता बनाए रखती है																	
बी. अल्पावधि ऋण	ii) एकल फसल प्रणाली से बहु-फसल प्रणाली में बदलाव																	

	सी. फसल उत्पादन का विविधीकरण	iii) आदानों की खरीद	
	डी. जैविक खेती	iv) फल, सब्जियां और फूल	
26	<p>..... Is an apex body to coordinate the activities of all institutions involved in the rural financing system.</p> <p>(Choose the correct option to fill up the blanks)</p> <p>a) Land Development Bank b) Regional Rural Banks c) Commercial Banks d) NABARD</p> <p>..... ग्रामीण वित्तपोषण प्रणाली में शामिल सभी संस्थानों की गतिविधियों का समन्वय करने के लिए एक शीर्ष निकाय है।</p> <p>(रिक्त स्थान को भरने के लिए सही विकल्प चुनें)</p> <p>क) भूमि विकास बैंक ख) क्षेत्रीय ग्रामीण बैंक ग) वाणिज्यिक बैंक घ) नाबार्ड</p>		1
27	<p>Read the following statement and select the correct alternative from the following:</p> <p>Statement 1: India, Pakistan and China have similar physical endowments, but totally different political systems.</p> <p>Statement 2: Both India and Pakistan laid great emphasis on creating a large private sector.</p> <p>a) Both the statements are true. b) Both the statements are false. c) Statement 1 is true but statement 2 is false. d) Statement 1 is false but statement 2 is true.</p> <p>निम्नलिखित कथनों को ध्यान से पढ़ें और सही विकल्प का चुनाव करें</p> <p>कथन 1: शिक्षा और स्वास्थ्य मानव पूंजी निर्माण के दो महत्वपूर्ण संकेतक हैं।</p> <p>कथन 2: शिक्षित व्यक्ति राष्ट्र निर्माण में अधिक योगदान देता है।</p> <p>क) दोनों कथन सत्य है। ख) दोनों कथन असत्य हैं।</p>		1

	ग) कथन 1 सत्य है और कथन 2 गलत है । घ) कथन 2 सत्य है और कथन 1 गलत है ।																
28	China has performed better than India? Do you agree with the given statement? Justify your answer with valid arguments. OR How do you explain re-emergence of poverty in Pakistan? चीन ने भारत से बेहतर प्रदर्शन किया है? आप इस कथन से संतुष्ट हैं? अपने उत्तर की पुष्टि में तर्क दीजिए । अथवा आप पाकिस्तान में गरीबी के फिर से उभरने को कैसे समझते हैं?	3															
29	a) Regular salaried employees more in urban areas than in rural areas? Do you agree with the given statement? Justify your answer with valid arguments. b) Define worker-population ratio? अ) शहरी क्षेत्रों में नियमित वेतनभोगी कर्मचारी ग्रामीण क्षेत्रों से अधिक हैं ? आप इस कथन से संतुष्ट हैं? अपने उत्तर की पुष्टि में तर्क दीजिए । ब) श्रमिक – जनसँख्या अनुपात की परिभाषा दीजिये?	3															
30	“The British introduced many infrastructural development projects which was largely driven by it’s own self-service interest.” Justify the given statement with valid explanation. OR What were the positive impact of British rule in India? "ब्रिटिशों ने कई बुनियादी ढांचागत विकास परियोजनाएं शुरू कीं जो काफी हद तक उनके स्वयं-सेवा हित से प्रेरित थीं।" दिए गए कथन को वैध स्पष्टीकरण सहित सिद्ध कीजिए। अथवा भारत में ब्रिटिश शासन के सकारात्मक प्रभाव क्या थे?	4															
31	Compare and analyze the given data of India and China, with valid reasons: <table border="1"> <thead> <tr> <th>Country</th> <th>Annual Growth Rate of Population (2015)</th> <th>Gender Ratio (Per thousand males)</th> </tr> </thead> <tbody> <tr> <td>India</td> <td>1.2%</td> <td>929</td> </tr> <tr> <td>China</td> <td>0.5%</td> <td>941</td> </tr> </tbody> </table> वैध कारणों के साथ भारत और चीन के दिए गए आंकड़ों की तुलना और विश्लेषण करें: <table border="1"> <thead> <tr> <th>देश</th> <th>देश की वार्षिक जनसंख्या</th> <th>लिंग अनुपात (प्रति हजार पुरुष)</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Country	Annual Growth Rate of Population (2015)	Gender Ratio (Per thousand males)	India	1.2%	929	China	0.5%	941	देश	देश की वार्षिक जनसंख्या	लिंग अनुपात (प्रति हजार पुरुष)				4
Country	Annual Growth Rate of Population (2015)	Gender Ratio (Per thousand males)															
India	1.2%	929															
China	0.5%	941															
देश	देश की वार्षिक जनसंख्या	लिंग अनुपात (प्रति हजार पुरुष)															

	भारत	1.2%	929		
	चीन	0.5%	941		
32	<p>“Serious concerns over the climate change are taking over the attention for the world.”</p>  <p>In the light of the above statement and image, discuss any two strategies to tackle this global concern of Environmental degradation.</p> <p>"जलवायु परिवर्तन पर गंभीर चिंताएं दुनिया का ध्यान अपनी ओर खींच रही हैं।" उपरोक्त कथन और छवि के प्रकाश में, पर्यावरणीय गिरावट की इस वैश्विक चिंता से निपटने के लिए किन्हीं दो रणनीतियों पर चर्चा करें।</p>				2+2
33	<p>Read the following passage carefully and answer the questions that follow:</p> <p>“The year 1991 marked a turning point in the Indian economy. Faced with a severe Balance of Payments crisis, the Government of India introduced sweeping economic reforms. These reforms aimed at liberalizing the economy by reducing government control, opening up to foreign investment and encouraging private participation. The new economic policy focused on the pillars of liberalization, privatization and globalization to revitalize the economy.”</p> <p>a) In the light of the given text and common understanding, comment upon the circumstances that led to the introduction of the new economic policy in 1991.</p> <p>b) Explain any two key features each of liberalization, Privatization and Globalization under NEP.</p> <p style="text-align: center;">OR</p> <p>Read the following excerpt and answer the questions that follow:</p> <p>“The government has decided to replace the complex structure of multiple indirect taxes with a single tax called The Goods and Services Tax (GST). This aims to eliminate tax-on-tax, create a unified national market and improve the ease of doing business across states”.</p> <p>Source: HTTps://www.indiabudget.gov.in/doc/bspeech/bs201617.pdf</p> <p>i) What is GST, and how is it different from the earlier tax system?</p> <p>ii) Explain any three major benefits of GST to the Indian economy.</p> <p>i) निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़ें और निम्नलिखित प्रश्नों के उत्तर दें:</p>				3+3
					3+3

	<p>"वर्ष 1991 भारतीय अर्थव्यवस्था में एक महत्वपूर्ण मोड़ साबित हुआ। गंभीर भुगतान संतुलन संकट का सामना करते हुए, भारत सरकार ने व्यापक आर्थिक सुधारों की शुरुआत की। इन सुधारों का उद्देश्य सरकारी नियंत्रण को कम करके, विदेशी निवेश को खोलकर और निजी भागीदारी को प्रोत्साहित करके अर्थव्यवस्था को उदार बनाना था। नई आर्थिक नीति ने अर्थव्यवस्था को पुनर्जीवित करने के लिए उदारीकरण, निजीकरण और वैश्वीकरण के स्तंभों पर ध्यान केंद्रित किया।"</p> <p>क) दिए गए पाठ और सामान्य समझ के प्रकाश में, उन परिस्थितियों पर टिप्पणी करें जिनके कारण 1991 में नई आर्थिक नीति की शुरुआत हुई।</p> <p>ख) एनईपी के तहत उदारीकरण, निजीकरण और वैश्वीकरण की किन्हीं दो प्रमुख विशेषताओं की व्याख्या करें।</p> <p style="text-align: center;">या</p> <p>निम्नलिखित अंश पढ़ें और उसके बाद आने वाले प्रश्नों के उत्तर दें:</p> <p>"सरकार ने कई अप्रत्यक्ष करों की जटिल संरचना को माल और सेवा कर (जीएसटी) नामक एकल कर से बदलने का निर्णय लिया है। इसका उद्देश्य कर-पर-कर को खत्म करना, एक एकीकृत राष्ट्रीय बाजार बनाना और राज्यों में व्यापार करने में आसानी में सुधार करना है।"</p> <p>स्रोत: https://www.indiabudget.gov.in/doc/bspeech/bs201617.pdf</p> <p>i) जीएसटी क्या है, और यह पिछली कर प्रणाली से कैसे भिन्न है?</p> <p>ii) भारतीय अर्थव्यवस्था को जीएसटी से होने वाले किन्हीं तीन प्रमुख लाभों की व्याख्या करें।</p>	
34	<p>"In India, National Education Policy 2020 has stressed a lot on in-service training of the teachers."</p> <p>i) Identify the sources of Human Capital Formation indicated in the aforesaid statement.</p> <p>ii) Elaborate the likely impact of this source on the economic development of India</p> <p>"भारत में, राष्ट्रीय शिक्षा नीति 2020 में शिक्षकों के सेवाकालीन प्रशिक्षण पर बहुत जोर दिया गया है।"</p> <p>i) उपरोक्त कथन में बताए गए मानव पूंजी निर्माण के स्रोतों की पहचान करें।</p> <p>ii) भारत के आर्थिक विकास पर इस स्रोत के संभावित प्रभाव का विस्तार से वर्णन करें</p>	2+4

केंद्रीय विद्यालय संगठन, देहरादून संभाग
KENDRIYA VIDYALAYA SANGATHAN, DEHRADUN REGION
पूर्व परिषदीय परीक्षा 2025-26

SET-IV

कक्षा : बारहवीं

विषय : हिंदी आधार (302)

निर्धारित समय : 3:00 घंटे

अधिकतम अंक - 80

सामान्य निर्देश :

निम्नलिखित निर्देशों को बहुत सावधानी से पढ़िए और उनका पालन कीजिए:-

- इस प्रश्नपत्र में तीन खंड 'क' 'ख' और 'ग' हैं।
- खंड 'क' में अपठित बोध पर आधारित प्रश्न पूछे गए हैं। सभी प्रश्नों के उत्तर देना अनिवार्य है।
- खंड 'ख' में पाठ्य पुस्तक अभिव्यक्ति और माध्यम पर आधारित प्रश्न पूछे गए हैं। प्रश्नों में आंतरिक विकल्प दिए गए हैं।
- खंड 'ग' में आरोह भाग 2 एवं वितान भाग 2 पर आधारित प्रश्न पूछे गए हैं। प्रश्नों में आंतरिक विकल्प दिए गए हैं।
- तीनों खंडों के प्रश्नों के उत्तर देना अनिवार्य है।
- यथासंभव तीनों खंडों के प्रश्नों के उत्तर क्रमशः लिखिए।

प्रश्न संख्या	खंड 'क' अपठित बोध	अंक 18
[1]	निम्नलिखित गद्यांश पर आधारित प्रश्नों के उत्तर दीजिए।	(10)
	<p>दुःख के वर्ग में जो स्थान भय का है, वही स्थान आनंद-वर्ग में उत्साह का है। भय में हम प्रस्तुत कठिन स्थिति के नियम से विशेष रूप में दुःखी और कभी-कभी उस स्थिति से अपने को दूर रखने के लिए प्रयत्नवान भी होते हैं। उत्साह में हम आने वाली कठिन स्थिति के भीतर साहस के अवसर के निश्चय द्वारा प्रस्तुत कर्म-सुख की उमंग से अवश्य प्रयत्नवान होते हैं। उत्साह से कष्ट या हानि सहने की दृढ़ता के साथ-साथ कर्म में प्रवृत्ति होने के आनंद का योग रहता है। साहसपूर्ण आनंद की उमंग का नाम उत्साह है। कर्म-सौंदर्य के उपासक ही सच्चे उत्साही कहलाते हैं।</p> <p>जिन कर्मों में किसी प्रकार कष्ट या हानि सहने का साहस अपेक्षित होता है उन सबके प्रति उत्कंठापूर्ण आनंद उत्साह के अंतर्गत लिया जाता है। कष्ट या हानि के भेद के अनुसार उत्साह के भी भेद हो जाते हैं। साहित्य-मीमांसकों ने इसी दृष्टि से युद्ध-वीर, दान-वीर, दया-वीर इत्यादि भेद किए हैं। इनमें सबसे प्राचीन और प्रधान युद्धवीरता है, जिसमें आघात, पीड़ा क्या मृत्यु तक की परवाह नहीं</p>	

	<p>रहती। इस प्रकार की वीरता का प्रयोजन अत्यंत प्राचीन काल से पड़ता चला आ रहा है, जिसमें साहस और प्रयत्न दोनों चरम उत्कर्ष पर पहुँचते हैं। केवल कष्ट या पीड़ा सहन करने से साहस में ही उत्साह का स्वरूप स्फुरित नहीं होता। उसके साथ आनंदपूर्ण प्रयत्न या उसकी उत्कंठा का योग चाहिए। बिना बेहोश हुए भारी फोड़ा चिराने को तैयार होना साहस कहा जाएगा, पर उत्साह नहीं। इसी प्रकार चुपचाप, बिना हाथ-पैर हिलाए, घोर प्रहार सहने के लिए तैयार रहना साहस और कठिन-से-कठिन प्रहार सहकर भी जगह से न हटना वीरता कही जाएगी। ऐसे साहस और वीरता को उत्साह के अंतर्गत तभी ले सकते हैं जब कि साहसी या वीर उस काम को आनंद के साथ करता चला जाएगा जिसके कारण उसे इतने प्रहार सहने पड़ते हैं। सारांश यह है कि आनंदपूर्ण प्रयत्न या उसकी उत्कंठा में ही उत्साह का दर्शन होता है, केवल कष्ट सहने के निश्चेष्ट साहस में नहीं। वृत्ति और साहस दोनों का उत्साह के बीच संचरण होता है।</p> <p>दानवीर और अर्थ-त्याग का साहस अर्थात् उसके कारण होने वाले कष्ट या कठिनता को सहने की क्षमता अंतर्निहित रहती है। दानवीरता तभी कही जाएगी जब दान के कारण दानी को अपने जीवन-निर्वाह में किसी प्रकार का कष्ट या कठिनता दिखाई देगी। इस कष्ट या कठिनता की मात्रा या संभावना जितनी ही अधिक होगी, दानवीरता उतनी ही ऊँची समझी जाएगी, पर इस अर्थ-त्याग के साहस के साथ ही जब तक पूर्ण तत्परता और आनंद के चिह्न न दिखाई पड़ेंगे तब तक उत्साह का स्वरूप न खड़ा होगा।</p>	
(क)	<p>भय का स्थान किस वर्ग में है?</p> <p>(I) दुख के वर्ग में</p> <p>(II) सुख के वर्ग में</p> <p>(III) क्रोध के वर्ग में</p> <p>(IV) चिंता के वर्ग में</p>	1
(ख)	<p>मृत्यु तक की परवाह किस प्रकार की वीरता में नहीं होती?</p> <p>(I) धर्मवीरता में</p> <p>(II) कर्मवीरता में</p> <p>(III) युद्धवीरता में</p> <p>(IV) दानवीरता में</p>	1
(ग)	<p>निम्नलिखित कथन तथा कारण को ध्यान से पढ़िए तथा सही विकल्प का चयन कीजिए।</p> <p>कथन (A) आनंदपूर्ण प्रयत्न या उसकी उत्कंठा में ही उत्साह का दर्शन होता है। कारण (R) कष्ट सहने के निश्चेष्ट साहस में भी उतना ही उत्साह के दर्शन होते हैं।</p> <p>विकल्प</p>	1

	(I) कथन (A) सही है किंतु कारण (R) उसकी सही व्याख्या नहीं है। (II) कथन (A) सही है किंतु कारण (R) उसकी सही व्याख्या करती है। (III) कथन (A) और कारण (R) दोनों सही है। (IV) कथन (A) सही है किंतु कारण (R) गलत है।	
	नीचे लघुतरीय प्रश्नों के उत्तर 25-30 शब्दों में दीजिए।	
(घ)	उत्साह के बीच किनका संचरण होता है ?	1
(ङ)	सच्चे उत्साही कौन होते हैं?	2
(च)	उत्साह में किसका योग रहता है ?	2
(छ)	दानवीरता किसे कहा जा सकता है?	2
2.	निम्नलिखित पद्यांश को पढ़कर दिए गए प्रश्नों के सबसे सटीक विकल्प चुनकर लिखिए :-	(08)
	पथ बंद है पीछे अचल है पीठ पर धक्का प्रबल। मत सोच बढ़ चल तू अभय, ले बाहु में उत्साह-बल। जीवन-समर के सैनिकों संभव असंभव को करो पथ-पथ निमंत्रण दे रहा आगे कदम, आगे कदम। ओ बैठने वाले तुझे देगा न कोई बैठने। पल-पल समर, नूतन सुमन-शय्या न देगा लेटने। आराम संभव है नहीं जीवन सतत संग्राम है बढ़ चल मुसाफिर धर कदम, आगे कदम, आगे कदम। ऊँचे हिमानी श्रृंग पर, अंगार के धु-भृंग पर तीखे करारे खंग पर आरंभ कर अद्भुत सफर ओ नौजवां, निर्माण के पथ मोड़ दे, पथ खोल दे जय-हार में बढ़ता रहे आगे कदम, आगे कदम।	
(क)	इस काव्यांश में कवि किसे प्रेरणा दे रहा है ? (i) मनुष्य को (ii) उत्साह को (iii) सफर को (iv) कवि स्वयं को	1
(ख)	किस पंक्ति का आशय है- जीवन के युद्ध में सुख-सुविधाएँ चाहना ठीक नहीं? (i) पल-पल समर, नूतन सुमन-शय्या न देगा लेटने। (ii) पथ बंद है पीछे अचल है पीठ पर धक्का प्रबल। (iii) जय-हार में बढ़ता रहे आगे कदम।	1

	(iv) उपरोक्त में से कोई नहीं	
(ग)	अद्भुत सफर की अद्भुतता क्या है? निम्नलिखित कथनों पर विचार कीजिए: कथन (i) हिम से ढके पहाड़ों पर चलना कथन (ii) ज्वालामुखी पर शोध करना कथन (iii) तीखे तलवारों पर चलना कथन (iv) अनजाने रास्तों पर चलना विकल्प: (i) केवल कथन (ii) सही हैं । (ii) केवल कथन (i) सही हैं । (iii) केवल कथन (i) और (iii) सही हैं । (iv) केवल कथन (i) और (iv) सही हैं ।	1
	नीचे दिए गए अतिलघुत्तरीय/लघुत्तरीय प्रश्नों के उत्तर 20/25-30 शब्दों में दीजिए।	
(घ)	जीवन सतत संग्राम है'।-कवि ने ऐसा क्यों कहा है?	1
(ङ)	काव्यांश में कवि ने जीवन-समर के सैनिकों को जो संदेश दिया है, उससे आप को क्या सीखना चाहिए?	2
(च)	बढ़ चल मुसाफिर धर कदम, आगे कदम, आगे कदम' इस पंक्ति का आशय स्पष्ट करिए?	2
प्रश्न संख्या	खंड 'ख'(अभिव्यक्ति और माध्यम पुस्तक पर आधारित प्रश्न)	अंक 22
3.	दिए गए तीन विषयों में से किसी एक विषय पर 120 शब्दों में एक रचनात्मक लेख लिखिए। • पटाखे बिन दिवाली • वाहनों की तेज रफ्तार • मेरे बचपन की न भूलने वाली भूल	1x6=6
4.	निम्नलिखित में से किन्हीं चार प्रश्नों के उत्तर 40 शब्दों में दीजिए।	4x2=08
(क)	समाचार लेखन की उल्टा पिरामिड शैली क्या है ?	2
(ख)	कहानी को नाटक में किस प्रकार रूपांतरित किया जा सकता है? आधार बिन्दुओं का उल्लेख कीजिए।	2
(ग)	सम्पादकीय को अखबार की आवाज़ क्यों कहा जाता है ?	2
(घ)	स्तम्भ लेखन क्या है?	2
(ङ)	फ्रीलांसर पत्रकार किसे कहते हैं?	2
5.	निम्नलिखित में से किन्हीं दो प्रश्नों के उत्तर 80 शब्दों में दीजिए।	2x4=08

(क)	विशेष रिपोर्ट किसे कहते हैं? विशेष रिपोर्ट कितने प्रकार की होती हैं?	4
(ख)	साहित्यिक और पत्रकारीय लेखन में क्या अंतर है? समझाकर लिखिए।	4
(ग)	प्रिंट या मुद्रित माध्यम से आप क्या समझते हो? इसकी किन्हीं तीन विशेषताओं का उल्लेख कीजिये?	4
प्रश्न संख्या	खंड 'ग' (पाठ्यपुस्तक आरोह एवं वितान पर आधारित प्रश्न)	अंक (40)
6.	निम्नलिखित काव्यांश को पढ़कर नीचे दिए गए प्रश्नों के सर्वाधिक सटीक विकल्प चुनिए।	5x1=05
	सुत बित नारि भवन परिवारा । होहिं जाहिं जग बारहिं बारा ॥ अस बिचारि जिय जागहु ताता । मिलइ न जगत सहोदर भ्राता ॥ जथा पंख बिनु खग अति दीना । मणि बिनु फनि करिबर कर हीना ॥ अस मम जिवन बन्धु बिनु तोही । जौ जड़ दैव जियावै मोही ॥ जैहों अवध कवन मुंह लाई । नारि हेतु प्रिय भाइ गंवाई ॥ बरु अपजस सहतेउ जग माहीं । नारि हानि विशेष छति नाहीं ॥ अब अपलोक शोक सुत तोरा । सहहि निठुर कठोर उर मोरा ॥	
(क)	हमें संसार में दुबारा क्या नहीं मिल सकता? (I) पुत्र (II) भवन (III) भाई (IV) धन दौलत	1
(ख)	लक्ष्मण के बिना राम का जीवन कैसा होगा ? (I) जैसे पंख के बिना पक्षी (II) जैसे मणि के बिना नाग (III) जैसे सूंड के बिना हाथी (IV) उपर्युक्त तीनों	1
(ग)	काव्य पंक्तियों में कौन-सा छंद है ? (I) चौपाई (II) दोहा (III) सोरठा (IV) उपर्युक्त तीनों	1
(घ)	काव्यांश की भाषा कौन सी है ? (I) ब्रज (II) अवधी (III) दोनों	1

	(IV) इनमें से कोई नहीं	
(ड)	निम्नलिखित कथन- कारण को ध्यानपूर्वक पढ़िए उसके बाद दिए गए विकल्पों में से कोई एक सही विकल्प चुनकर लिखिए - कथन - काव्यांश में श्रीराम अयोध्या जाने से संकोच कर रहे थे। कारण - श्रीराम को लगता है की लोग व्यंग्य कथन कहेंगे कि पत्नी के लिए भाई गँवा दिया। (I) कथन(A) गलत है तथा कारण(R) सही है। (II) कथन(A) तथा कारण(R) दोनों सही हैं। (III) कथन(A) सही है लेकिन कारण(R) उसकी गलत व्याख्या करता है। (IV) कथन(A) तथा कारण(R) दोनों गलत हैं।	1
7.	निम्नलिखित प्रश्नों को ध्यानपूर्वक पढ़कर किन्ही दो प्रश्नों के उत्तर 60 शब्दों में लिखिए।	2x3=06
(क)	'रुबाइयों' के आधार पर घर आँगन में दिवाली और राखी के दृश्य बिम्ब को अपने शब्दों में समझाइए।	3
(ख)	किसी के दुख-दर्द और वेदना को बेचकर कारोबार चलाना और उसकी पीड़ा का मजाक उड़ाना नैतिकता का पतन और मानवीय मूल्यों का हनन है। इस कथन की पुष्टि 'कैमरे में बंद अपाहिज' कविता के संदर्भ में कीजिए।	3
(ग)	'में और, और जग और, कहाँ का नाता'- पंक्ति में 'और' शब्द की विशेषता बताते हुए पंक्ति का अर्थ स्पष्ट कीजिए।	3
8.	निम्नलिखित प्रश्नों को ध्यानपूर्वक पढ़कर किन्ही दो प्रश्नों के उत्तर 40 शब्दों में लिखिए।	2x2=04
(क)	'उषा' कविता ग्रामीण परिवेश का गतिशील चित्रण है। स्पष्ट कीजिए?	2
(ख)	'विप्लव के बादल की घोर गर्जना का धनी और शोषक वर्ग पर क्या प्रभाव पड़ता है?	2
(ग)	रचना कर्म में विचारों के अंधड़ की क्या भूमिका है? 'छोटा मेरा खेत' कविता के आधार पर स्पष्ट कीजिए।	2
9.	निम्नलिखित काव्यांश को पढ़कर नीचे दिए गए प्रश्नों के सर्वाधिक सटीक विकल्प चुनिए।	5x1=05
	मैं सोचता हूँ कि पुराने की यह अधिकार लिप्सा क्यों नहीं समय रहते सावधान हो जाती ? जरा और मृत्यु , ये दोनों ही जगत के अति परिचित और अतिप्रामाणिक सत्य है । तुलसीदास ने अफ़सोस के साथ इनकी सच्चाई पर मुहर लगाई थी - 'धरा को प्रमान यही तुलसी जो फरा सो झरा, जो बरा सो बुताना।' मैं शिरीष के फूलों को देख कर कहता हूँ कि क्यों नहीं फलते ही समझ लेते बाबा कि झड़ना निश्चित है! सुनता कौन है ? महाकाल देवता सपासप कोड़े चला रहे हैं, जीर्ण और दुर्बल झड़ रहे हैं, जिनमें प्राणकण थोड़ा भी उर्ध्वमुखी है, वे टिक जाते हैं। दुरंत प्राणधारा और सर्वव्यापक कालाग्नि का संघर्ष निरंतर चल रहा है। मूर्ख समझते है कि जहाँ बनें है, वहीं देर तक बने रहें तो कालदेवता की आँख बचा जाएँगे । भोले	

	हैं वे । हिलते -डुलते रहो, स्थान बदलते रहो, आगे की ओर मुँह किए रहो तो कोड़े की मार से बच भी सकते हो, जमें कि मरे ।	
(क)	इस संसार का अटल सत्य क्या है ? (I) धीरे-धीरे मृत्यु की ओर अग्रसर होना (II) जलकर मृत्यु को प्राप्त होना (III) बूढ़ा होना और मृत्यु को प्राप्त होना (IV) विद्यालय जाना और पढ़ाई करना	1
(ख)	शिरीष के फल कैसे होते हैं ? (I) अत्यंत स्वादिष्ट (II) अत्यंत कठोर (III) कोमल और स्वादिष्ट (IV) शिरीष में फल नहीं लगता	1
(ग)	संसार में निरंतर संघर्ष किसके बीच चल रहा है ? (I) मानव और दानव (II) गरीबी और अमीरी (III) जीवन और मृत्यु (IV) यम और देवता	1
(घ)	'धरा को प्रमाण यही तुलसी जो फरा सो झरा, जो बरा सो बुताना।- इस कथन को - (I) तुलसीदास ने बड़े अफ़सोस के साथ कहा क्योंकि वे मृत्यु से डरते थे। (II) तुलसीदास ने बड़े गर्व के साथ कहा क्योंकि वे मृत्यु से डरते नहीं थे। (III) तुलसीदास ने अपनी मृत्यु के समय कहा था। (IV) तुलसीदास ने बड़े अफ़सोस के साथ कहा क्योंकि वे मृत्यु के सत्य को जानते थे।	1
(ङ)	पाठ और लेखक के सही मेल का विकल्प चुनकर लिखिए (I) शिरीष के फूल - जैनेन्द्र कुमार (II) शिरीष के फूल - हजारी प्रसाद द्विवेदी (III) पतंग - रघुवीर सहाय (IV) शिरीष के फूल - फणीश्वर नाथ रेणु	1
10.	निम्नलिखित प्रश्नों को ध्यानपूर्वक पढ़कर किन्हीं दो प्रश्नों के उत्तर 60 शब्दों में लिखिए।	2x3=06
(क)	'जाति प्रथा और श्रम विभाजन' पाठ में लेखक द्वारा बताये गए आदर्श समाज के तीन तत्वों का उल्लेख कीजिए ।	3

(ख)	बाज़ार का जादू चढ़ने और उतरने पर मनुष्य पर क्या-क्या असर पड़ता है?	3
(ग)	जीजी ने त्याग और दान के बारे में ऋषि-मुनियों की बात को तर्क के साथ प्रमाणित किया? 'काले मेघा पानी दे' पाठ के आधार पर उत्तर दीजिए।	3
11.	निम्नलिखित प्रश्नों को ध्यानपूर्वक पढ़कर किन्हीं दो प्रश्नों के उत्तर 40 शब्दों में लिखिए।	2x2=04
(क)	गाँव में महामारी फैलने और अपने बेटों के देहांत के बावजूद लुट्टन पहलवान ढोल क्यों बजाता रहा ?	2
(ख)	शिरीष के फूल पाठ से आपको क्या प्रेरणा मिलती है?	2
(ग)	भक्तिन का दुर्भाग्य भी कम हठी नहीं था, लेखिका ने ऐसा क्यों कहा होगा? लेखिका के इस कथन के संदर्भ में अपना विचार व्यक्त कीजिए।	2
12.	निम्नलिखित प्रश्नों को ध्यानपूर्वक पढ़कर किन्हीं दो प्रश्नों के उत्तर 100 शब्दों में लिखिए।	2x5=10
(क)	'अतीत में दबे पाँव' पाठ में सिन्धु सभ्यता के सबसे बड़े नगर 'मुअनजोदड़ो' की नगर योजना आज की नगर योजनाओं से किस प्रकार बेहतर थी? उदाहरण सहित लिखिए।	5
(ख)	यशोधर बाबू एक ओर तो अपने बच्चों की तरक्की से खुश होते हैं वहीं कुछ 'समहाउ इम्प्रोपर' भी अनुभव करते हैं, ऐसा क्यों? पाठ 'सिल्वर वेडिंग' के आधार पर स्पष्ट कीजिए।	5
(ग)	'जूड़ा' कहानी में लेखक ने क्या संदेश दिया है? क्या लेखक अपने उद्देश्य में सफल रहा है? 'जूड़ा' पाठ के संदर्भ में अपने विचार लिखिए।	5

प्री-बोर्ड परीक्षा २०२५-२६/PRE-BOARD EXAMINATION 2025-26
व्यावसायिक अध्ययन (०५४) / BUSINESS STUDIES (054)

MM: 80

TIME: 03 HRS

General Instructions:

- 1. This question paper contains 34 questions.**
- 2. Marks are indicated against each question.**
- 3. Answers should be brief and to the point.**
- 4. Answers to the question carrying 3 marks may be from 50 to 75 words.**
- 5. Answers to the question carrying 4 marks may be about 150 words.**
- 6. Answers to the question carrying 6 marks may be about 200 words.**
- 7. Attempt all parts of questions together**

Q.N.	Questions	MM
1	<p>Arnav has recently started a business to sell computers. He hired a shop in Nehru Place in New Delhi, where he adapts his production and supply processes according to changing customer demands and market trends. He continuously updates computer models, incorporates new technology, and ensures timely delivery as per orders. These functions require him to respond to changes in the market and customer preferences. The feature of management highlighted above is :</p> <p>(a) Management is a continuous process. (b) Management is pervasive. (c) Management is dynamic. (d) Management is a group activity.</p> <p>अर्नाव ने हाल ही में कंप्यूटर बेचने का व्यवसाय शुरू किया। उसने नई दिल्ली के नेहरू प्लेस में एक दुकान किराए पर ली, जहाँ वह बदलती ग्राहक मांगों और बाजार की प्रवृत्तियों के अनुसार अपने उत्पादन और आपूर्ति प्रक्रियाओं को अनुकूलित करता है। वह लगातार कंप्यूटर मॉडलों को अपडेट करता है, नई तकनीक अपनाता है और सुनिश्चित करता है कि आदेशों के अनुसार समय पर डिलीवरी हो। इन सभी कार्यों के लिए उसे बाजार और ग्राहक की प्राथमिकताओं में बदलावों के अनुसार प्रतिक्रिया देने की आवश्यकता होती है।</p> <p>उपर्युक्त विवरण में प्रबंधन की कौन-सी विशेषता प्रदर्शित हो रही है?</p> <p>(क) प्रबंधन एक निरंतर प्रक्रिया है। (ख) प्रबंधन सर्वव्यापी है। (ग) प्रबंधन गतिशील है। (घ) प्रबंधन एक समूह गतिविधि है।</p>	1
2	<p>The Topper group is looking to make a foray into manufacturing of semiconductors and it has set up a business to seize the business opportunity and add to its prospects in the long run. The company has already pivoted into a number of new projects like electronics, 5G network equipment, as well as semiconductors. Which economic objective of management does the business seek to fulfil?</p> <p>(a) Survival (b) Growth (c) Profit (d) Efficiency</p> <p>टॉपर समूह सेमिकंडक्टर के निर्माण में उतर रहा है और उसने दीर्घकालिक अवसरों के लिए व्यापार स्थापित किया है। वह पहले ही इलेक्ट्रॉनिक्स, 5G नेटवर्क उपकरण आदि के क्षेत्र में काम कर रही है। प्रबंधन के कौन से आर्थिक उद्देश्य की पूर्ति के लिए यह व्यापार किया गया है?</p> <p>(क) अस्तित्व (ख) वृद्धि</p>	1

	(ग) लाभ (घ) दक्षता	
3	<p>Directions: In the given question, two statements are given. One is labelled as 'Assertion (A)' and the other as 'Reason (R)'. You are to examine these two statements carefully and select the answers using the codes given below:</p> <p>Assertion (A): Gang boss is one of the planning functional foremen.</p> <p>Reason (R): Gang boss is responsible for keeping tools and machines ready for operation.</p> <p>(a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)</p> <p>(b) Both Assertion (A) and Reason (R) are true but Reason (R) is not the correct explanation of Assertion (A)</p> <p>(c) Assertion (A) is true but Reason (R) is false</p> <p>(d) Assertion (A) is false but Reason (R) is true</p> <p>दिए गए प्रश्न में दो कथन हैं, एक 'आश्रय (A)' और दूसरा 'कारण (R)। दोनों को ध्यानपूर्वक पढ़िए और सही उत्तर चुनिए:</p> <p>आश्रय (A): गैंग बॉस योजना संबंधी फोरमेन में है।</p> <p>कारण (R): गैंग बॉस मशीन और टूल्स को संचालन हेतु तैयार रखता है।</p> <p>(क) दोनों सत्य हैं, और कारण सही व्याख्या है</p> <p>(ख) दोनों सत्य हैं, पर कारण सही व्याख्या नहीं है</p> <p>(ग) आश्रय सत्य है, पर कारण असत्य है</p> <p>(घ) आश्रय असत्य है, पर कारण सत्य है</p>	1
4	<p>Which of the following statements correctly describe the meaning of principle of Subordination of Individual Interest to General Interest?</p> <p>(i) The interests of an organisation should take priority over the interests of any individual employee.</p> <p>(ii) A chain of authority and communication that runs from top to bottom should be followed by the managers and the subordinates.</p> <p>(iii) The larger interests of workers and stakeholders are more important than the interest of any one person.</p> <p>(a) Only (i) (b) (ii) and (iii)</p> <p>(c) (i) and (iii) (d) (i), (ii) and (iii)</p> <p>निम्न में से कौन-सा विकल्प व्यक्तिगत हित की अधीनता को सामान्य हित के लिये सही प्रकार से दर्शाता है?</p> <p>(i) संगठन के हित किसी भी कर्मचारी के हित से ऊंचे होने चाहिए।</p> <p>(ii) शीर्ष से नीचे तक संचार और अधिकार की चैन का पालन होना चाहिए।</p> <p>(iii) कर्मचारियों एवं हितधारकों के बड़े हित किसी एक व्यक्ति के हित से अधिक महत्वपूर्ण हैं।</p> <p>(क) केवल (i)</p> <p>(ख) (ii) और (iii)</p> <p>(ग) (i) और (iii)</p> <p>(घ) (i), (ii) और (iii)</p>	1
5	<p>Identify the dimension of business environment illustrated by the picture given below in which the important notice given at the bottom of the baby food must be mentioned by all advertisers.</p>	1



- (a) Political Environment (b) Social Environment
 (c) Legal Environment (d) Economic Environment

नीचे दी गई तस्वीर में दिखाए गए बेबी फूड की सबसे निचली सूचना सभी विज्ञापनकर्ताओं को देना अनिवार्य है। इससे व्यापार वातावरण का कौन सा आयाम दर्शाया गया?



- (क) राजनीतिक वातावरण
 (ख) सामाजिक वातावरण
 (ग) कानूनी वातावरण
 (घ) आर्थिक वातावरण

6 If an organisation sets the objective to increase the sales by 10%, then the sales can be increased by 1

- (i) Adding more lines of products
 (ii) Offering products at discount
 (iii) increasing the expenditure on advertising.

Identify the step of planning process mentioned here: -

- (a) Implementation of plan
 (b) Identifying alternative courses of action
 (c) Follow up of plan
 (d) Evaluating alternative courses of action

यदि कोई संगठन बिक्री 10% बढ़ाने का उद्देश्य रखता है, तो बिक्री किस प्रकार बढ़ाई जा सकती है?

- (i) और उत्पाद लाइनों को जोड़ना
 (ii) उत्पाद पर छूट देना
 (iii) विज्ञापन व्यय बढ़ाना

यह योजना प्रक्रिया का कौन-सा चरण है?

- (क) योजना का कार्यान्वयन
 (ख) वैकल्पिक कार्यों की पहचान
 (ग) योजना की फॉलो अप

	(घ) वैकल्पिक कार्यों का मूल्यांकन																	
7	<p>Match the various terms related to staffing in Column I with their respective statements in Column II and choose the correct alternative:</p> <table border="1"> <thead> <tr> <th>Column I</th> <th>Column II</th> </tr> </thead> <tbody> <tr> <td>A. Orientation</td> <td>(i) Act of enhancing the skill of an employee</td> </tr> <tr> <td>B. Placement</td> <td>(ii) Familiarisation of new employee</td> </tr> <tr> <td>C. Training</td> <td>(iii) Putting the right person on the right job</td> </tr> </tbody> </table> <p>(a) A – (ii), B – (iii), C – (i) (b) A – (i), B – (iii), C – (ii) (c) A – (iii), B – (ii), C – (i) (d) A – (ii), B – (i), C – (iii)</p> <p>स्टाफिंग से संबंधित शब्दों को कॉलम I तथा उनके वाक्यांशों (कॉलम II) से मिलाइए :</p> <table border="1"> <thead> <tr> <th>कॉलम I</th> <th>कॉलम II</th> </tr> </thead> <tbody> <tr> <td>A. ओरिएंटेशन</td> <td>(i) कर्मचारी के कौशल को बढ़ाने की क्रिया</td> </tr> <tr> <td>B. नियुक्ति</td> <td>(ii) नए कर्मचारी का परिचय</td> </tr> <tr> <td>C. प्रशिक्षण</td> <td>(iii) सही व्यक्ति को सही कार्य पर लगाना</td> </tr> </tbody> </table> <p>विकल्प :</p> <p>(क) A—(ii), B—(iii), C—(i) (ख) A—(i), B—(iii), C—(ii) (ग) A—(iii), B—(ii), C—(i) (घ) A—(ii), B—(i), C—(iii)</p>	Column I	Column II	A. Orientation	(i) Act of enhancing the skill of an employee	B. Placement	(ii) Familiarisation of new employee	C. Training	(iii) Putting the right person on the right job	कॉलम I	कॉलम II	A. ओरिएंटेशन	(i) कर्मचारी के कौशल को बढ़ाने की क्रिया	B. नियुक्ति	(ii) नए कर्मचारी का परिचय	C. प्रशिक्षण	(iii) सही व्यक्ति को सही कार्य पर लगाना	1
Column I	Column II																	
A. Orientation	(i) Act of enhancing the skill of an employee																	
B. Placement	(ii) Familiarisation of new employee																	
C. Training	(iii) Putting the right person on the right job																	
कॉलम I	कॉलम II																	
A. ओरिएंटेशन	(i) कर्मचारी के कौशल को बढ़ाने की क्रिया																	
B. नियुक्ति	(ii) नए कर्मचारी का परिचय																	
C. प्रशिक्षण	(iii) सही व्यक्ति को सही कार्य पर लगाना																	
8	<p>Identify and arrange the correct sequence of the steps involved in the Staffing process and choose the correct alternative:</p> <p>(i) It refers to choose the most suitable candidate. (ii) It refers to introduction of new employees to the existing employees. (iii) It refers to evaluate the performance of employees. (iv) It refers to increase the knowledge and skills of an employee for doing a particular job.</p> <p>(a) (i), (iv), (iii), (ii) (b) (iii), (i), (iv), (ii) (c) (iii), (ii), (iv), (i) (d) (i), (ii), (iv), (iii)</p> <p>स्टाफिंग प्रक्रिया के चरणों को पहचानिए और सही क्रम में लगाइए :</p> <p>(i) सबसे उपयुक्त उम्मीदवार का चयन करना (ii) नए कर्मचारियों का परिचय देना (iii) कर्मचारियों के प्रदर्शन का मूल्यांकन (iv) नौकरी के लिए ज्ञान और कौशल बढ़ाना</p> <p>(क) (i), (iv), (iii), (ii) (ख) (iii), (i), (iv), (ii) (घ) (iii), (ii), (iv), (i) (घ) (i), (ii), (iv), (iii)</p>	1																
9	<p>Status comes under:</p> <p>(a) Semantic barriers of communication (b) Personal barriers of communication (c) Organisational barriers of communication (d) Psychological barriers of communication</p> <p>प्रतिष्ठा किस श्रेणी की संचार बाधा में आती है? (क) अर्थगत बाधा</p>	1																

	(ख) व्यक्तिगत बाधा (ग) संगठनात्मक बाधा (घ) मनोवैज्ञानिक बाधा	
10	Darshit has been working with PQR Ltd. for past five years. The company recently offered him car allowance. Identify the kind of financial incentive offered by PQR Ltd. to Darshit. (a) Pay and allowance (b) Bonus (c) Perquisites (d) Co-partnership दर्शित PQR लिमिटेड में पाँच वर्षों से कार्यरत है। उसे हाल ही में कंपनी ने कार भत्ता दिया। यह किस प्रकार की वित्तीय प्रोत्साहन है? (क) वेतन एवं भत्ता (ख) बोनस (ग) परिक्विज़िट्स (घ) सह-भागीदारी	1
11	Identify the correct sequence of steps involved in the communication process. (a) Sender, Message, Encoding, Media, Decoding, Feedback, Receiver, Noise (b) Sender, Decoding, Receiver, Feedback, Message, Encoding, Media, Noise (c) Sender, Message, Encoding, Media, Decoding, Receiver, Feedback, Noise (d) Sender, Media, Decoding, Receiver, Message, Encoding, Feedback, Noise संचार प्रक्रिया के सही क्रम को पहचानें : (क) प्रेषक, संदेश, एनकोडिंग, माध्यम, डिकोडिंग, फीडबैक, रिसीवर, शोर (ख) प्रेषक, डिकोडिंग, रिसीवर, फीडबैक, संदेश, एनकोडिंग, माध्यम, शोर (ग) प्रेषक, संदेश, एनकोडिंग, माध्यम, डिकोडिंग, रिसीवर, फीडबैक, शोर (घ) प्रेषक, माध्यम, डिकोडिंग, रिसीवर, संदेश, एनकोडिंग, फीडबैक, शोर	1
12	Employees know well in advance what they are expected to do and what are the standards of performance on the basis of which they will be appraised, which in turn helps them to give better performance. Which importance of 'Controlling' function of management is being highlighted here? (a) Accomplishing organisational goals (b) Judging accuracy of standards (c) Facilitating coordination in action (d) Improving employee motivation कर्मचारियों को पहले ही पता होता है कि उन्हें क्या करना है और उनके प्रदर्शन का मूल्यांकन किस आधार पर होगा, इससे उन्हें बेहतर प्रदर्शन में मदद मिलती है। 'नियंत्रण' के किस महत्व का उल्लेख यहाँ हुआ है? (क) संगठनात्मक लक्ष्यों की प्राप्ति (ख) मानकों की सटीकता का मूल्यांकन (ग) क्रियाओं में समन्वय बनाना (घ) कर्मचारी प्रेरणा में वृद्धि	1
13	'Eco Foods Ltd' is a food joint in Imperial Mall in Bengaluru. It is becoming popular among students and working people due to healthy, on-the-go dishes on its menu like 'Paneer Wrap', 'Chickpeas Salad', 'Grilled Sandwiches', etc. It has now decided to open two new branches in other parts of Bengaluru. Which financial decision has been discussed in the above case? (a) Long-term investment decision (b) Short-term investment decision (c) Dividend decision (d) Financing decision 'एकोफूड्स लिमिटेड' एक फूड जॉइंट है जो अब बेंगलुरु में अन्य दो ब्रांच खोल रहा है। ऊपर दिए गए	1

	<p>केस में कौन सा वित्तीय निर्णय उजागर हो रहा है?</p> <p>(क) दीर्घकालिक निवेश निर्णय (ख) अल्पकालिक निवेश निर्णय (ग) लाभांश निर्णय (घ) वित्तपोषण निर्णय</p>	
14	<p>“It is essentially the preparation of a financial blueprint of an organisation’s future operations.” Identify the related concept indicated here.</p> <p>(a) Financial management (b) Financial planning (c) Capital budgeting decision (d) Dividend decision</p> <p>"यह मुख्यतः संगठन की भविष्य की वित्तीय संचालन का ब्लूप्रिंट है।" यहाँ किस संकल्पना की बात की गई है?</p> <p>(क) वित्तीय प्रबंधन (ख) वित्तीय योजना (ग) पूंजी बजट निर्णय (घ) लाभांश निर्णय</p>	1
15	<p>Identify the factor affecting the fixed capital requirement depicted in the picture given below.</p>  <p>(a) Growth prospects (b) Diversification (c) Financing alternatives (d) Level of collaboration</p> <p>तस्वीर में दिखाए गए फिक्स्ड कैपिटल आवश्यकता को प्रभावित करने वाले तत्व की पहचान करें:</p>  <p>(क) विकास की संभावनाएँ (ख) विविधीकरण (ग) वित्तपोषण विकल्प (घ) सहयोग का स्तर</p>	1

16	<p>Match the options in Column I with Column II and choose the correct alternative:</p> <table border="1"> <thead> <tr> <th>Column I</th> <th>Column II</th> </tr> </thead> <tbody> <tr> <td>A. Fixed capital requirement is more</td> <td>(i) If production cycle is longer</td> </tr> <tr> <td>B. Fixed capital requirement is less</td> <td>(ii) If credit is availed by the firm</td> </tr> <tr> <td>C. Working capital requirement is more</td> <td>(iii) If it is trading concern</td> </tr> <tr> <td>D. Working capital requirement is less</td> <td>(iv) If it is capital intensive concern</td> </tr> </tbody> </table> <p>(a) A – (iv), B – (iii), C – (i), D – (ii) (b) A – (iv), B – (i), C – (iii), D – (ii) (c) A – (iii), B – (iv), C – (ii), D – (i) (d) A – (ii), B – (i), C – (iii), D – (iv)</p> <p>कॉलम I एवं कॉलम II के विकल्प मिलाइए :</p> <table border="1"> <thead> <tr> <th>कॉलम I</th> <th>कॉलम II</th> </tr> </thead> <tbody> <tr> <td>A. स्थायी पूंजी की आवश्यकता अधिक है</td> <td>(i) यदि उत्पादन चक्र लंबा है</td> </tr> <tr> <td>B. स्थायी पूंजी की आवश्यकता कम है</td> <td>(ii) यदि फर्म द्वारा उधार लिया जाता है</td> </tr> <tr> <td>C. कार्यशील पूंजी की आवश्यकता अधिक है</td> <td>(iii) यदि वह एक ट्रेडिंग फर्म है</td> </tr> <tr> <td>D. कार्यशील पूंजी की आवश्यकता कम है</td> <td>(iv) यदि वह पूंजी प्रधान फर्म है</td> </tr> </tbody> </table> <p>(क) A—(iv), B—(iii), C—(i), D—(ii) (ख) A—(iv), B—(i), C—(iii), D—(ii) (ग) A—(iii), B—(iv), C—(ii), D—(i) (घ) A—(ii), B—(i), C—(iii), D—(iv)</p>	Column I	Column II	A. Fixed capital requirement is more	(i) If production cycle is longer	B. Fixed capital requirement is less	(ii) If credit is availed by the firm	C. Working capital requirement is more	(iii) If it is trading concern	D. Working capital requirement is less	(iv) If it is capital intensive concern	कॉलम I	कॉलम II	A. स्थायी पूंजी की आवश्यकता अधिक है	(i) यदि उत्पादन चक्र लंबा है	B. स्थायी पूंजी की आवश्यकता कम है	(ii) यदि फर्म द्वारा उधार लिया जाता है	C. कार्यशील पूंजी की आवश्यकता अधिक है	(iii) यदि वह एक ट्रेडिंग फर्म है	D. कार्यशील पूंजी की आवश्यकता कम है	(iv) यदि वह पूंजी प्रधान फर्म है	1
Column I	Column II																					
A. Fixed capital requirement is more	(i) If production cycle is longer																					
B. Fixed capital requirement is less	(ii) If credit is availed by the firm																					
C. Working capital requirement is more	(iii) If it is trading concern																					
D. Working capital requirement is less	(iv) If it is capital intensive concern																					
कॉलम I	कॉलम II																					
A. स्थायी पूंजी की आवश्यकता अधिक है	(i) यदि उत्पादन चक्र लंबा है																					
B. स्थायी पूंजी की आवश्यकता कम है	(ii) यदि फर्म द्वारा उधार लिया जाता है																					
C. कार्यशील पूंजी की आवश्यकता अधिक है	(iii) यदि वह एक ट्रेडिंग फर्म है																					
D. कार्यशील पूंजी की आवश्यकता कम है	(iv) यदि वह पूंजी प्रधान फर्म है																					
17	<p>Identify the correct sequence of steps to be followed in the trading procedure at Stock Exchange.</p> <p>(a) Opening a trading account and demat account, Placing an order, Settlement of order, Execution of order (b) Settlement of order, Opening a trading account and demat account, Placing an order, Execution of order (c) Opening a trading account and demat account, Placing an order, Execution of order, Settlement of order (d) Placing an order, Opening a trading account and demat account, Execution of order, Settlement of order</p> <p>स्टॉक एक्सचेंज में ट्रेडिंग प्रक्रिया की सही सीक्वेंस चुनें :</p> <p>(क) ट्रेडिंग अकाउंट खोलना, ऑर्डर देना, ऑर्डर का निपटान, ऑर्डर निष्पादन (ख) ऑर्डर का निपटान, ट्रेडिंग अकाउंट खोलना, ऑर्डर देना, निष्पादन (ग) ट्रेडिंग अकाउंट खोलना, ऑर्डर देना, निष्पादन, निपटान (घ) ऑर्डर देना, ट्रेडिंग अकाउंट खोलना, निष्पादन, निपटान</p>	1																				
18	<p>Assertion (A): Controlling insider trading and imposing penalties for such practices is the protective function of SEBI. Reason (R): Registration of collective investment schemes and mutual funds is a developmental function of SEBI.</p> <p>(a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A) (b) Both Assertion (A) and Reason (R) are true and Reason (R) is not the correct explanation of Assertion (A) (c) Assertion (A) is true but Reason (R) is false (d) Assertion (A) is false but Reason (R) is true</p> <p>कथन (A): इनसाइडर ट्रेडिंग को नियंत्रित करना तथा ऐसी गतिविधियों पर दंड लगाना SEBI का संरक्षण कार्य है। कारण (R): सामूहिक निवेश योजनाएं एवं म्यूचुअल फंड का पंजीकरण SEBI का विकासात्मक कार्य है।</p> <p>(क) दोनों सत्य और रिजन उचित व्याख्या है</p>	1																				

	<p>(ख) दोनों सत्य पर रिजन उचित व्याख्या नहीं है</p> <p>(ग) कथन सत्य पर कारण असत्य</p> <p>(घ) कथन असत्य पर कारण सत्य</p>	
19	<p>Before buying a thing a customer analyses its cost and the satisfaction that he is to get from it. He will buy the thing only when he feels that its satisfaction will be more than its cost. Seller is to make the thing while keeping in mind this tendency of the buyer. A seller, who does not pay heed to the importance that the buyer gives to the product, certainly lags behind in competition. Identify the feature of marketing highlighted in the above paragraph.</p> <p>(a) Needs and wants</p> <p>(b) Creating a market offering</p> <p>(c) Customer value</p> <p>(d) Exchange mechanism</p> <p>कोई ग्राहक वस्तु खरीदने से पहले उसकी लागत और उससे मिलने वाली संतुष्टि का विश्लेषण करता है। यदि उसे संतुष्टि अधिक लगती है तभी वस्तु खरीदेगा। विक्रेता को भी इस प्रवृत्ति को ध्यान में रखना चाहिए। उत्पाद की उपयोगिता न समझने वाला विक्रेता बाज़ार में पिछड़ जाता है। यहाँ विपणन की कौन सी विशेषता उजागर हो रही है?</p> <p>(क) आवश्यकताएँ एवं इच्छाएँ</p> <p>(ख) बाज़ार प्रस्ताव बनाना</p> <p>(ग) ग्राहक मूल्य</p> <p>(घ) अदला-बदली तंत्र</p>	1
20	<p>ITC started its business with Jobaico Industry. Later, it entered in hotel industry, consumer goods industry, stationery, etc. ITC assured quality to customers and kept company's name as its identity. This helps the customers in product identification and hence ensured quality. It also built up their confidence and help in increasing their level of satisfaction. Name the element of marketing mix indicated in the given case.</p> <p>(a) Product</p> <p>(b) Price</p> <p>(c) Place</p> <p>(d) Promotion</p> <p>ITC ने पहले जाँबाइक उद्योग से व्यवसाय आरंभ किया, बाद में होटल, उपभोक्ता उत्पाद, स्टेशनरी आदि में प्रवेश किया। गुणवत्ता का भरोसा एवं नाम वस्त्र पर रखना ग्राहकों की पहचान एवं संतुष्टि बढ़ाता है। यहाँ विपणन मिश्रण का कौन सा तत्व दिखाया गया है?</p> <p>(क) उत्पाद</p> <p>(ख) मूल्य</p> <p>(ग) स्थान</p> <p>(घ) प्रचार</p>	1
21	<p>A company is manufacturing washing machines. There is a well-defined system of jobs with a clear and definite authority, responsibility and accountability in the company. But people are not allowed to interact beyond their officially defined roles. As a result the company is not able to adapt to the changing business environment. The workforce is also not motivated due to lack of social interaction. The company is facing problems of procedural delays and inadequate recognition to creative talents.</p> <p>(i) Suggest how the organisation can overcome the problems faced by it.</p> <p>(ii) Give any two benefits it will derive from your suggestion.</p> <p style="text-align: center;">OR</p> <p>Resident Welfare Association (RWA) of Noida, Sector 15 decided to organise Diwali mela on the eve of Diwali. They listed all the activities to be done, grouped them as per their nature and assigned the activities/duties to different people of their association. After completion of the mela, they found that it was not a success. While analysing the reasons, the President of RWA found that mere allocation of work was not enough in the organisation. He found that an important step in the organising process was missing</p>	3

	<p>identify the step. Also state the other two steps of the same process.</p> <p>एक कंपनी वॉशिंग मशीन बना रही है। कंपनी में नौकरियों का सुव्यवस्थित सिस्टम है जिसमें स्पष्ट अधिकार, जिम्मेदारी और जवाबदेही है। लेकिन लोग अपनी आधिकारिक भूमिकाओं के बाहर आपस में संवाद नहीं कर सकते। परिणामस्वरूप कंपनी बदलते व्यावसायिक वातावरण के अनुसार खुद को अनुकूलित नहीं कर पा रही है। कर्मचारियों में सामाजिक संवाद की कमी के कारण प्रेरणा की भी कमी है। कंपनी प्रक्रियाओं में देरी और रचनात्मक प्रतिभा की अपर्याप्त पहचान जैसी समस्याओं का सामना कर रही है।</p> <p>(i) सुझाव दें कि संगठन किस प्रकार इन समस्याओं को दूर कर सकता है। (ii) आपके सुझाव से संगठन को कौन से दो लाभ होंगे?</p> <p style="text-align: center;">अथवा</p> <p>नोएडा सेक्टर-15 की रेजिडेंट वेलफेयर एसोसिएशन (RWA) ने दिवाली मेले का आयोजन करना चाहा। उन्होंने सभी गतिविधियां सूचीबद्ध कीं, उन्हें उनकी प्रकृति के अनुसार समूहित किया और विभिन्न लोगों को जिम्मेदारियां दीं। मेले के बाद पाया गया कि यह सफल नहीं रहा। विश्लेषण करने पर अध्यक्ष ने पाया कि सिर्फ काम सौंप देना पर्याप्त नहीं था, बल्कि आयोजन प्रक्रिया का एक जरूरी चरण छूटा गया था—उस चरण की पहचान करें और प्रक्रिया के अन्य दो चरण भी बताइए।</p>	
22	<p>Distinguish between the concepts 'product' and 'production' in Marketing keeping following as the base:</p> <p>(i) Focus (ii) Means (iii) Ends.</p> <p>मार्केटिंग में 'प्रोडक्ट' और 'प्रोडक्शन' की अवधारणा में नीचे दिए आधार पर अंतर स्पष्ट करें:</p> <p>(i) केंद्रबिंदु. (ii) साधन. (iii) उद्देश्य</p>	3
23	<p>Sacred Heart School organised an Inter School Commerce Fest. A committee of twenty students was made to organize different competitions. All the committee members worked together in harmony systematically to make the Fest a grand success. After the fest, all the team members were appreciated by their teachers and principal. They felt very happy and satisfied. State any three features of management by quoting the lines, highlighted in the above paragraph.</p> <p>सेक्रेड हार्ट स्कूल ने इंटर-स्कूल कॉमर्स फेस्ट का आयोजन किया। बीस छात्रों की समिति बनाई गई, जिसने विभिन्न प्रतियोगिताएं आयोजित कीं। सभी ने मिल-जुलकर काम किया और फेस्ट सफल रहा। फेस्ट के बाद शिक्षकों व प्रिंसिपल ने टीम की सराहना की। सभी सदस्य प्रसन्न और संतुष्ट थे। ऊपर दिए गए अनुच्छेद में से पंक्तियाँ उद्धृत करके प्रबंधन (मैनेजमेंट) की कोई तीन विशेषताएं बताइए।</p>	3
24	<p>Explain the following functions of Stock Exchange:</p> <p>(i) Providing liquidity and marketability to existing securities (ii) Pricing of securities (iii) Safety of transaction</p> <p style="text-align: center;">OR</p> <p>State any three 'Regulatory functions' of Securities and Exchange Board of India. निम्नलिखित स्टॉक एक्सचेंज के कार्यों की व्याख्या कीजिए:</p> <p>(i) मौजूदा प्रतिभूतियों को तरलता एवं बाजारयोग्यता प्रदान करना (ii) प्रतिभूतियों का मूल्य निर्धारण (iii) लेन-देन की सुरक्षा</p> <p style="text-align: center;">अथवा</p> <p>भारतीय प्रतिभूति और विनियम बोर्ड (SEBI) के कोई तीन 'नियामक कार्य' बताइए।</p>	3
25	<p>(i) Name and explain the principle of management in which workers should be encouraged to develop and carry out their plans for improvements in the organisation. (ii) Name and explain the technique of scientific management which helps in eliminating unnecessary diversity of products and thus, results in saving cost.</p> <p>(i) उस प्रबंधन सिद्धांत का नाम लिखिए जिसमें कर्मचारियों को संगठन में सुधार के लिए अपनी योजनाएँ विकसित करने के लिए प्रोत्साहित किया जाना चाहिए। इसे समझाइए।</p>	4

	(ii) वैज्ञानिक प्रबंधन की उस तकनीक का नाम बताइए जिससे अनावश्यक उत्पाद विविधता समाप्त हो और लागत में बचत हो।	
26	<p>One of the external source of recruitment which is used by the companies is the recommendations of present employees (or Employee Referrals). Such applicants are likely to be good employees because their background is sufficiently known. At Jupiter Networks, the referral system accounted for 50% of the 290 employees recruited in a particular year. Many companies especially in IT companies offer bonus or gifts like mobile phones or holiday packages to their employees for referral. The companies are giving more focus on this type of recruitment. State the benefits derived by a company due to this type of recruitment.</p> <p>कंपनियाँ बाहरी स्रोत के रूप में मौजूदा कर्मचारियों की अनुशंसाओं (Employee Referrals) से भर्ती करती हैं। इस प्रणाली से ऐप्लिकेंट्स की पृष्ठभूमि ज्ञात होने से वे अच्छे कर्मचारी सिद्ध होते हैं। उदाहरण दिया गया कि जुपिटर नेटवर्क्स में इस प्रणाली से 50% कर्मचारी भर्ती हुए। आईटी कंपनियाँ तो रेफरल हेतु बोनस/गिफ्ट भी देती हैं। इस तरह की भर्ती से कंपनी को कौन-कौन से लाभ होते हैं?</p>	4
27	<p>“A good understanding of environment by business managers enables them not only to identify and evaluate but also to react to the forces external to their firm.”</p> <p>In the light of the above statement explain any two points of importance of understanding business environment by a manager.</p> <p>“व्यावसायिक प्रबंधकों द्वारा बाह्य वातावरण की अच्छी समझ उन्हें केवल पहचानने और आंकलन ही नहीं बल्कि बाहरी शक्तियों पर प्रतिक्रिया करने में भी सक्षम बनाती है।”</p> <p>ऊपर दिए गए कथन के आलोक में, प्रबंधक के लिए व्यावसायिक वातावरण का महत्व बताते हुए कोई दो बिंदु स्पष्ट कीजिए।</p>	4
28	<p>Distinguish between ‘Programme’ and ‘Procedure’.</p> <p style="text-align: center;">OR</p> <p>Explain ‘Method’ and ‘Rule’ as types of plans.</p> <p>‘प्रोग्राम’ तथा ‘प्रक्रिया’ में क्या अंतर है?</p> <p style="text-align: center;">अथवा</p> <p>‘विधि’ और ‘नियम’ को योजनाओं (types of plans) के रूप में समझाइए।</p>	4
29	<p>“Every time I travelled, people asked me to bring them chips, Khakra and Pickles from all over the country,” says Anoushka. Finally, she and her colleague, Sumeet, decided to make a business out of it. They launched a facebook page, asked people what they wanted, and they came up with a list of about 100 places and tied up with two dozen vendors to begin with. They were servicing people from Jaipur who wanted spices from Kerala, people from Panipat who wanted halwa from Jammu and people from Delhi who ordered for fresh tea leaves from Darjeeling</p> <p>. Through their business they wished to bridge the gap between sellers and buyers. The business is now worth millions.</p> <p>Explain any two important activities that Anoushka and Sumeet will have to be involved in for making the goods available to the customers at the right place, in the right quantity and at the right time.</p> <p style="text-align: center;">OR</p> <p>Radhika was a student of Business Studies of Class XII. Her father was a farmer who grew different varieties of rice and was well-versed about various aspects of rice cultivation. He was also selected by the government for a pilot-project on rice cultivation. As a project-work in Business Studies she decided to study the feasibility of marketing good quality rice at a reasonable price. Her father suggested her to use internet to gather customers’ views and opinions. She found that there was a huge demand for packaged organic rice. She knew that there were no pre-determined specifications in case of rice because of which it would be difficult to achieve uniformity in the output, to differentiate the product from its competitors, she gave it the name of ‘Malabari Organic Rice’ and classified it into three different varieties namely — Popular, Classic and Supreme, based on the quality. She felt that these names would help her in</p>	4

	<p>product differentiation.</p> <p>Explain the two functions of marketing, with reference to the above paragraph.</p> <p>“हर बार जब मैं यात्रा करती थी, लोग मुझसे देशभर से चिप्स, खाखरा और अचार मंगवाने को कहते थे,” अनुष्का ने कहा। अंततः अनुष्का व सुमीत ने इसके बिजनेस की शुरुआत की, फेसबुक पेज बनाया, जनता के सुझाव लिए, 100 जगहों के उत्पाद जोड़े, दर्जनों विक्रेताओं से समझौता किया। राजस्थान के ग्राहकों को केरल के मसाले, पानीपत वालों को जम्मू का हलवा, दिल्ली वालों को दार्जिलिंग की चाय भेजते हैं। उनकी मंशा खरीदार और विक्रेता को जोड़ने की थी। अब यह बिजनेस करोड़ों में पहुँच चुका है।</p> <p>ऐसे कौन से दो महत्वपूर्ण कार्य हैं जिनमें अनुष्का व सुमीत को सामान को सही जगह, सही मात्रा और समय पर ग्राहकों तक पहुँचाने के लिए अपने को संलग्न करना होगा?</p> <p style="text-align: center;">अथवा</p> <p>राधिका ने व्यवसाय अध्ययन में प्रोजेक्ट कार्य के रूप में अच्छी गुणवत्ता वाले चावल को उचित मूल्य पर बेचने की व्यवहार्यता का अध्ययन किया। उसने ग्राहकों की राय इंटरनेट से एकत्रित की और पाया कि अच्छी पैकिंग वाले ऑर्गेनिक चावल की बड़ी मांग है। चावल के लिए पूर्व-निर्धारित मानक न होने के कारण गुणवत्ताओं में भिन्नता होती है, जिससे एकरूपता और प्रतियोगिता में भेद करना कठिन होता है। इसलिए, राधिका ने उत्पाद को ‘Malabari Organic Rice’ नाम दिया और गुणवत्ता के आधार पर उसे तीन श्रेणियों में वर्गीकृत किया - पाँपुलर, क्लासिक और सुप्रीम। ये नाम उत्पाद की पहचान और भेदभाव में सहायक होंगे।</p> <p>ऊपर दिए गए विवरण के सन्दर्भ में विपणन के दो कार्य स्पष्ट कीजिए।</p>	
30	<p>A company was manufacturing ‘LED bulbs’ which were in great demand. It was found that the target of producing 300 bulbs a day was not met by the employees. On analysis, it was found that the workers were not at fault. Due to electricity failure and shortage of workers, the company was not able to achieve the set targets and alternative arrangements needed. To meet the increased demand, the company assessed that approximately 88 additional workers were required out of which 8 would work as heads of different departments and 10 would work as subordinates under each head. All efforts were made to match the ability of the applicants with the nature of work:</p> <p>(a) Identify the function of management to be performed which require to meet the target.</p> <p>(b) State the three steps in the process of the function identified in (a) above.</p> <p>एक कंपनी एलईडी बल्ब का निर्माण कर रही थी जिनकी मांग बहुत ज्यादा थी। यह पाया गया कि कर्मचारियों द्वारा प्रतिदिन 300 बल्ब बनाने का लक्ष्य पूरा नहीं हो पाया। विश्लेषण में पता चला कि कर्मचारियों की गलती नहीं है। बिजली की बाधा और कर्मचारियों की कमी के कारण कंपनी निर्धारित लक्ष्य प्राप्त करने में असमर्थ थी।</p> <p>बढ़ती मांग को पूरा करने के लिए कंपनी ने अनुमानित 88 अतिरिक्त कर्मचारियों की आवश्यकता बताई जिनमें 8 विभाग के प्रमुख के रूप में और प्रत्येक प्रमुख के नीचे 10 अधीनस्थ कर्मचारी कार्य करेंगे। सभी प्रयास उम्मीदवारों की योग्यता को कार्य की प्रकृति के अनुसार मिलाने के लिए किए गए।</p> <p>(क) इस संदर्भ में वह कौन-सा प्रबंधन कार्य है जिसे लक्ष्य पूरा करने के लिए करना आवश्यक है?</p> <p>(ख) उपरोक्त (a) में निर्दिष्ट प्रबंधन कार्य की प्रक्रिया के तीन चरण बताइए।</p>	4
31	<p>Shalini, after acquiring a degree in Hotel Management and Business Administration took over her family food processing company of manufacturing pickles, jams and squashes. The business was established by her great grandmother and was doing reasonably well. However the fixed operating costs of the business were high and the cash flow position was weak. She wanted to undertake modernisation of the existing business to introduce the latest manufacturing processes and diversify into the market of chocolates and candies. She was very enthusiastic and approached a finance consultant, who told her that approximately Rs.50 lakh would be required for undertaking the modernization and expansion programme. He also informed her that the stock market was going through a phase.</p>	6

	<p>(a) Keeping the above considerations in mind, name the source of finance Shalini should not choose for financing the modernization and expansion of her food processing business. Give one reason in support of your answer.</p> <p>(b) Explain any two other factors, apart from those stated in the above situation, which Shalini should keep in mind while taking this decision.</p> <p>शालिनी ने होटल प्रबंधन और व्यवसाय प्रशासन में डिग्री हासिल करने के बाद अपने परिवार के खाद्य प्रसंस्करण व्यवसाय, जो अचार, जैम और स्कैंश बनाता है, को संभाला। यह व्यवसाय उनकी परदादी द्वारा स्थापित किया गया था और औसतन ठीक-ठाक चल रहा था। हालांकि, व्यवसाय के स्थिर परिचालन लागत बहुत अधिक थे और नकदी प्रवाह की स्थिति कमजोर थी। वह मौजूदा व्यवसाय का आधुनिकीकरण करना चाहती थी ताकि नवीनतम निर्माण प्रक्रियाएं लागू की जा सकें और चॉकलेट और कैंडी के बाजार में विविधीकरण कर सकें। वह बहुत उत्साहित थी और एक वित्तीय सलाहकार से मिली, जिसने बताया कि आधुनिकीकरण और विस्तार कार्यक्रम के लिए लगभग 50 लाख रुपये की आवश्यकता होगी। उन्होंने यह भी कहा कि शेयर बाजार इस दौरान तेजी (बुलिश) की स्थिति में है।</p> <p>(क) उपरोक्त विचारों को ध्यान में रखते हुए, वह वित्तीय स्रोत बताइए जिसे शालिनी को अपने खाद्य प्रसंस्करण व्यवसाय के आधुनिकीकरण और विस्तार के लिए वित्तपोषण हेतु नहीं चुनना चाहिए। एक कारण सहित उत्तर दीजिए।</p> <p>(ख) इस निर्णय को लेते समय शालिनी को उपरोक्त स्थिति के अलावा कौन-कौन से दो अन्य कारक ध्यान में रखने चाहिए? स्पष्ट कीजिए।</p>	
32	<p>Huma is working in a company on a permanent basis. As per the job agreement she had to work for 8 hours a day and was free to work overtime. Huma worked overtime, due to which she fell ill and had to take leave from her work. No one showed concern and enquired about her health. She realised that she was fulfilling only some of her needs while some other needs still remained to be fulfilled.</p> <p>(i) By quoting the lines from the above para, identify the needs of Huma which she is able to fulfil.</p> <p>(ii) Also explain two other needs of Huma followed by the above needs, which still remained to be satisfied.</p> <p>ह्यूमा एक कंपनी में स्थायी कर्मचारी के रूप में कार्यरत है। उसे प्रतिदिन 8 घंटे काम करना होता है और वह अतिरिक्त समय काम करने के लिए स्वतंत्र है। ह्यूमा ने अतिरिक्त समय काम किया, जिसके कारण वह बीमार पड़ गई और अपनी नौकरी से अवकाश लेना पड़ा। किसी ने उसकी तबियत के बारे में चिंता नहीं की और न ही हालचाल पूछा। इससे पता चलता है कि वह अपनी कुछ आवश्यकताएं पूरी कर पा रही है, जबकि कुछ आवश्यकताएं अभी भी पूरी नहीं हुई हैं।</p> <p>(i) उपरोक्त अनुच्छेद से उद्धृत करके ह्यूमा की वह आवश्यकताएं बताएं जो वह पूरी कर पा रही है।</p> <p>(ii) ह्यूमा की दो अन्य आवश्यकताओं को बताएं जो उपरोक्त आवश्यकताओं के बाद आती हैं और जो अभी भी अधूरी हैं।</p>	6
33	<p>Aman a degree holder in Entrepreneurship came to know about Piplantri Village located in Rajasthan, where in 2006 an initiative was started, in which 111 trees are planted every time a girl child is born. To keep termites away from the trees the villagers have planted 2.5 million Aloe Vera plants around the trees. This has turned the village into an oasis, as the planting of trees led to higher water levels. Aman decided to visit the village to start a business unit, for the processing and marketing of Aloe Vera into juices, gels and other products. However, on visiting the village Aman found that the villagers were suffering exploitation at the hands of local merchants who were engaged in unscrupulous, exploitative trade practices like hoarding and black marketing of food products and also selling unsafe, adulterated products to the villagers. After looking at their plight instead of a business organisation he decided to set up an organisation for the protection and promotion of the consumer interest of the villagers. State the functions that the organisation established by Aman will be performing. (Any six points)</p> <p style="text-align: center;">OR</p>	6

Mrs. Mathur sent a jacket to a laundry shop in January 2018. The jacket was purchased at a price of 4,500. She had previously sent the jacket for dry cleaning with Shine Dry Cleaners and the jacket was cleaned well. However, she noticed that her jacket had white discolouration marks when she collected the jacket this time. On informing the dry cleaner, Mrs. Mathur received a letter confirming that discolouration indeed appeared after the jacket was dry cleaned. She contacted the dry cleaner multiple times and requested for compensation for a discoloured jacket but to no avail. Upon Consumer court's intervention, Shine Dry Cleaners agreed to compensate 2,500 to Mrs. Mathur for the discoloured jacket.

- Which right was exercised by Mrs. Mathur at the first instance?
- Name and explain the right which helped Mrs. Mathur to avail the compensation.
- State which consumer responsibility has been fulfilled by Mrs. Mathur in the above case.
- State any other two responsibilities to be assumed by the consumers.

अमन, जो एक उद्यमिता में डिग्री धारक हैं, को राजस्थान के पिपलंत्री गांव के बारे में पता चला, जहां 2006 में एक पहल शुरू हुई थी कि हर बार जब भी एक लड़की का जन्म होता है, तो गांव में 111 पेड़ लगाए जाते हैं। दीमकों से पेड़ों की रक्षा के लिए गांव वालों ने पेड़ों के चारों ओर 2.5 लाख एलोवेरा के पौधे लगाए। इस प्रयास से गांव एक नखलिस्तान बन गया क्योंकि पेड़ लगाने से भूजल स्तर बढ़ गया। अमन ने उस गांव का दौरा करने का निर्णय लिया ताकि एक व्यवसाय इकाई स्थापित कर एलोवेरा से जूस, जेल और अन्य उत्पाद बनाकर विपणन किया जा सके।

हालांकि, गांव पहुंचने पर अमन ने पाया कि गांववाले स्थानीय व्यापारियों के अत्याचार का शिकार हो रहे थे, जो खाद्य पदार्थों की मोलतोल, जमाखोरी और काले बाज़ार सहित अनैतिक व्यापारिक गतिविधियों में संलिप्त थे, साथ ही गांव वालों को असुरक्षित और मिलावटी उत्पाद बेच रहे थे। उनकी दुर्दशा को देखकर अमन ने व्यवसाय की बजाय एक संगठन करने का फैसला किया जो गांव वालों के उपभोक्ता हितों की सुरक्षा और संरक्षण करेगा।

अमान द्वारा स्थापित संगठन कौन-कौन से कार्य करेगा, छह बिंदुओं में वर्णित करें।

अथवा

श्रीमती माथुर ने जनवरी 2018 में अपनी जैकेट एक लॉन्ड्री की दुकान पर भेजी। यह जैकेट 4,500 रुपये की कीमत पर खरीदी गई थी। उन्होंने पहले भी वही जैकेट शाइन ड्राई क्लीनर्स से ड्राई-क्लीन कराई थी और तब जैकेट अच्छी तरह साफ हो गई थी। लेकिन इस बार जब उन्होंने जैकेट वापस ली तो उस पर सफेद रंग बदलने (डिसकलर होने) के निशान थे। जब श्रीमती माथुर ने ड्राई-क्लीनर को सूचित किया तो उसे पुष्टि करते हुए एक पत्र मिला कि ड्राई-क्लीन के बाद वास्तव में डिसकलर के निशान आ गए हैं। उन्होंने कई बार ड्राई-क्लीनर से संपर्क कर क्षतिपूर्ति (मुआवज़ा) की मांग की लेकिन कोई परिणाम नहीं निकला। उपभोक्ता न्यायालय के हस्तक्षेप के बाद, शाइन ड्राई क्लीनर्स श्रीमती माथुर को जैकेट के डिसकलर होने पर 2,500 रुपये क्षतिपूर्ति देने पर सहमति व्यक्त की।

(क) सबसे पहले श्रीमती माथुर ने किस उपभोक्ता अधिकार का प्रयोग किया?

(ख) वह कौन-सा अधिकार है जिसकी वजह से श्रीमती माथुर को क्षतिपूर्ति मिली और उसका विवरण दीजिए।

(ग) उपरोक्त मामले में श्रीमती माथुर ने कौन-सी उपभोक्ता जिम्मेदारी निभाई है?

(घ) उपभोक्ताओं द्वारा निभाई जाने वाली अन्य दो जिम्मेदारियाँ बताइए।

- 34 Differentiate between 'Functional' and 'Divisional' structure of organising on the basis of following:
- Meaning
 - Formation
 - Specialisation
 - Responsibility
 - Managerial development
 - Cost involved

'कार्यात्मक' और 'विभागीय' संगठन संरचना में निम्नलिखित आधारों पर अंतर करें:

6

(i) अर्थ (ii) गठन (iii) विशेषज्ञता (iv) जिम्मेदारी (v) प्रबंधकीय विकास (vi) लागत शामिल	
---	--

Pre-Board Examination (2025-26)

Subject-Biology

Class-XII

MM: 70

Time: 3 hours

General Instructions:

- (i) All questions are compulsory.
- (ii) The question paper has five sections and 33 questions.
- (iii) Section–A has 16 questions of 1 mark each; Section–B has 5 questions of 2 marks each; Section–C has 7 questions of 3 marks each; Section–D has 2 case-based questions of 4 marks each; and Section–E has 3 questions of 5 marks each.
- (iv) There is no overall choice. Answer all 33 questions. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.
- (v) Wherever necessary, neat and properly labeled diagrams should be drawn.

SECTION A

Q. No. 1 to 12 are multiple choice questions. Only one of the choices is correct. Select and write the correct choice as well as the answer to these questions.

Q. No.	Question	Marks
1	Which one of the following statements is not true? A. Pollen grains of many species cause severe allergies. B. Stored pollen in liquid nitrogen can be used in the crop breeding programme. C. Tapetum helps in the dehiscence of anther. D. Exine of pollen grains is made up of sporopollenin.	1
2	The three cells found in a pollen grain when it is shed at 3-celled stage are A. One vegetative cell, one generative cell, one male gamete B. One generative cell, one vegetative cell, one male gamete C. One generative cell, two male gametes D. One vegetative cell, two male gametes	1
3	Choose the correct statements: P. In the human pregnancy, the major organ systems are formed at the end of 12 weeks. Q. In human pregnancy the major organ systems are formed at the end of 8 weeks. R. In human pregnancy heart is formed after one month of gestation. S. In human pregnancy, limbs and digits develop by the end of second month. T. In human pregnancy the appearance of hair is usually observed in the fifth month. Select the correct answer from the options given below: A. Q, R, S and T only B. P, R, S and T Only C. P and T Only D. Q and R Only	1
4	With regard to mature mRNA in eukaryotes: A. Exons and introns do not appear in the mature RNA B. Exons appear but introns do not appear in the mature RNA C. Introns appear but exons do not appear in the mature RNA	1

	D. Both exons and introns appear in the mature RNA																					
5.	What is the primary lymphoid organ where T-lymphocytes mature?*	1																				
	A. Spleen B. Thymus C. Lymph nodes D. Bone marrow																					
6	If a genetic disease is transferred from a phenotypically normal but a carrier female to only some of the female progeny, the disease is:	1																				
	A. Autosomal dominant B. Autosomal recessive C. Autosomal dominant D. Sex-linked recessive																					
7	Chromosomal theory of inheritance was given by	1																				
	A. Morgan <i>et al</i> B. Sutton and Boveri C. Hugo deVries D. Gregor J. Mendel																					
8	Variations caused due to mutations are	1																				
	A. random and directionless B. random and directional C. random and small D. random, small and directional																					
9	Match List I with List II	1																				
	<table border="1"> <thead> <tr> <th></th> <th>LIST I</th> <th></th> <th>LIST II</th> </tr> </thead> <tbody> <tr> <td>P</td> <td><i>Clostridium butylicum</i></td> <td>I</td> <td>Ethanol</td> </tr> <tr> <td>Q</td> <td><i>Saccharomyces cerevisiae</i></td> <td>II</td> <td>Streptokinase</td> </tr> <tr> <td>R</td> <td><i>Trichoderma polysporum</i></td> <td>III</td> <td>Butyric Acid</td> </tr> <tr> <td>S</td> <td><i>Streptococcus sp</i></td> <td>IV</td> <td>Cyclosporin A</td> </tr> </tbody> </table> <p>Choose the correct answer from the options given below:</p> <p>A. P -III, Q -I, R -II, S -IV B. P -II, Q -IV, R -III, S -I C. P -III, Q -I, R -IV, S -II D. P -IV, Q -I, R -III, S -II</p>		LIST I		LIST II	P	<i>Clostridium butylicum</i>	I	Ethanol	Q	<i>Saccharomyces cerevisiae</i>	II	Streptokinase	R	<i>Trichoderma polysporum</i>	III	Butyric Acid	S	<i>Streptococcus sp</i>	IV	Cyclosporin A	
	LIST I		LIST II																			
P	<i>Clostridium butylicum</i>	I	Ethanol																			
Q	<i>Saccharomyces cerevisiae</i>	II	Streptokinase																			
R	<i>Trichoderma polysporum</i>	III	Butyric Acid																			
S	<i>Streptococcus sp</i>	IV	Cyclosporin A																			
10	What is the purpose of DNA sequencing?	1																				
	A. To amplify DNA sequences B. To identify genes C. To determine the order of nucleotides in DNA D. To clone genes																					
11	While isolating DNA from bacteria, which of the following enzymes is not required?	1																				
	A. Lysozyme B. Ribonuclease C. Deoxyribonuclease D. Protease																					
12	The role of DNA ligase in the construction of rDNA molecule is:	1																				
	A. formation of hydrogen bonds between sticky ends of DNA fragments B. ligation of all purine and pyrimidine bases																					

- C. Joining together of DNA fragments having the same kind of ‘sticky-ends’
 D. formation of phosphodiester bond between two DNA fragments having the same kind of ‘sticky-ends’

Question No. 13-16 consist of two statements - Assertion (A) and Reason (R). Answer these questions selecting the appropriate option given below:

- A. Both A and R are true and R is the correct explanation of A.
 B. Both A and R are true and R is not the correct explanation of A.
 C. A is true but R is false.
 D. A is false and R is true.

13 **Assertion:** Parturition is induced by neural signal in maternal pituitary.
Reason: At the end of gestation period, the maternal pituitary releases oxytocin which causes uterine contractions. 1

14 **Assertion:** Artificial insemination is the method of introduction of semen inside the female.
Reason: This technique is used in those cases where males have low sperm count. 1

15 **Assertion:** Thorns of *Bougainvillea* and tendrils of *Cucurbita* represent homology.
Reason: Homologous organs have similar functions but are different in their structural details and origin. 1

16 **Assertion:** Evolution is a continuous process that has shaped the diversity of life on Earth.
Reason: Evolution occurs exclusively through the process of natural selection. 1

SECTION B

17. **Attempt either option A or B.** 2
 A. Oral pills are very effective with lesser side effects and are well accepted by the females. Why is *Saheli* –the new oral contraceptive for females, preferred over oral pills?
OR
 B. How is Multiload 375 different from LNG-20?

18 Given below is the sequence of coding strand of DNA in a transcription unit:
 3' - A A T G C A G C T A T T A G G - 5'
 Write the sequence of:
 A. its complementary strand
 B. the mRNA 2

19 This is the table showing the prevalence of mentioned STIs in a Family Planning Clinic. Based on the information provided answer the questions that follow: 2

Causal organism	STIs	Prevalence
<i>Chlamydia trachomatis</i>	Chlamydia	23.0%
<i>Trichomonas vaginalis</i>	Trichomoniasis	5.6%
<i>Herpes simplex</i> viruses	Genital Herpes	4.6%
<i>Neisseria gonorrhoeae</i>	Gonorrhoea	3.1%
<i>Treponema pallidum</i>	Syphilis	1.02%

- A. Based on the table, which STI has the highest prevalence in the population? What preventive measures can be taken to control its spread?
 B. Prevalence of bacterial STIs is more than the viral STIs according to the data in the above table from a Family Planning Clinic. Discuss briefly.

20.

Attempt either option A or B.

2

A. Name the organism where *Ti* plasmid is found. Now it is a powerful tool in genetic engineering with applications in crop improvement and nutritional enhancement. Support the statement with your understanding of biotechnology.

OR

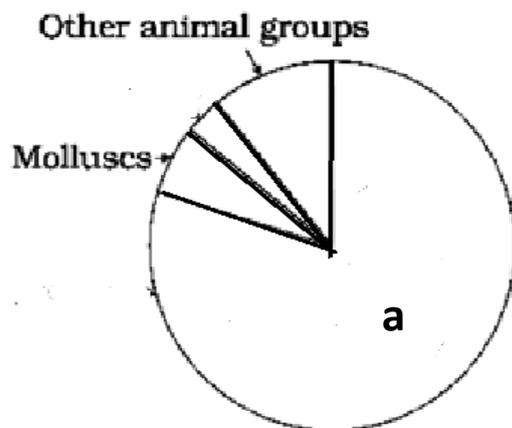
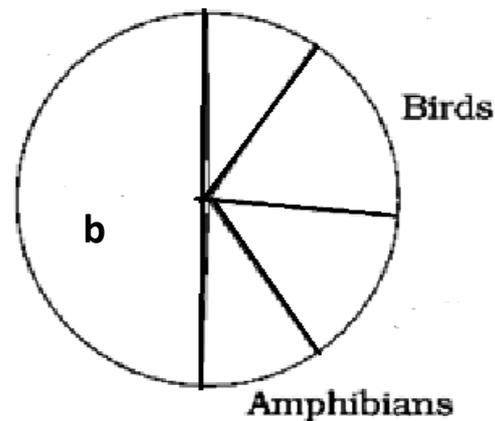
- B. (i) What is the difference between recombinant DNA and recombinant protein?
 (ii) After downstream processing, the product of the biosynthetic stage cannot be marketed directly. Give two reasons to support your answer.

21

Attempt either option A or B

2

A. Observe the Fig.1 and Fig. 2 illustrating the proportionate number of species of major taxa of invertebrates and vertebrates, respectively, according to the currently available species inventories.

**Fig. 1****Fig. 2**

- (i) Identify 'a' and 'b' taxa which represent proportionately higher number of species of invertebrates and vertebrates in Fig. 1 and Fig. 2, respectively.
 (ii) Draw the diagram to illustrate the proportionate number of species of some major taxa of plants.

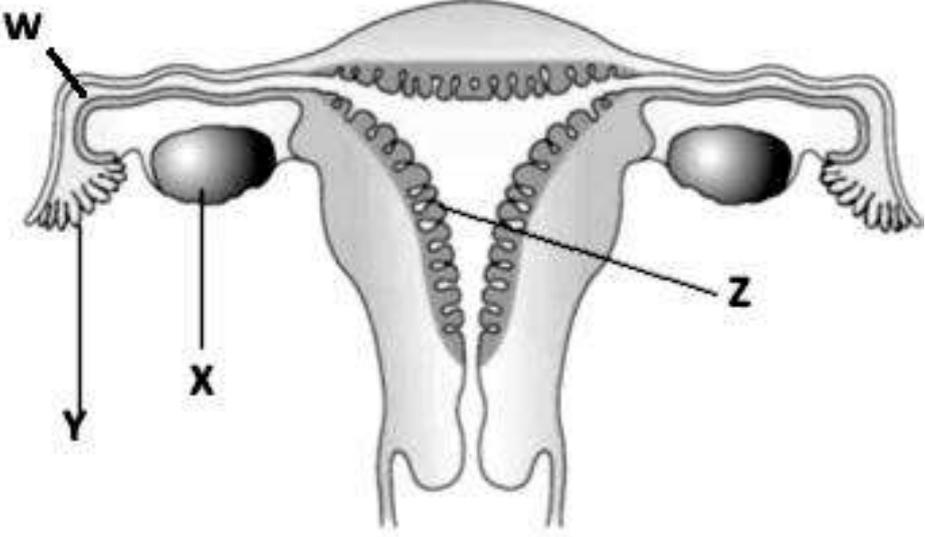
For visually impaired students

- A. (i) Stability of a community depends on its species richness. How was it experimentally shown by David Tilman.
 (ii) Biodiversity hotspots cover less than 2% of Earth's land area. Strict protection of these areas can reduce the rate of ongoing extinctions. Name any two hotspots in India.

OR

- B. (i) The Tundra desert's gross primary productivity (GPP) is 800 kilo calories/m² and respiration losses are about 200 kilo calories. Calculate the net primary productivity of the desert.
 (ii) Why do deserts have the least NPP across most ecosystems?

SECTION C

22	<p>Give scientific explanations for the following:</p> <p>A. Why is tobacco smoking associated with rise in blood pressure and emphysema (oxygen deficiency in the body)?</p> <p>B. Why does a doctor administer tetanus antitoxin and not a tetanus vaccine to a child injured in roadside accident with a bleeding wound?</p> <p>C. The anamnestic response is faster and more intense than primary response.</p>	3
23	<p>The diagrammatic sectional view of the female reproductive system is illustrated below. Answer the questions that follow:</p> <div style="text-align: center;">  </div> <p>A. Successful fertilization will take place only when 'Y' part in the above diagram functions properly. Justify.</p> <p>B. Surgical intervention takes place in 'W' part of the above diagram. How does this procedure justify its efficacy? What is a major disadvantage of this procedure?</p> <p>C. Corpus luteum formed in 'X' is responsible to maintain 'Z' for successful pregnancy. Explain.</p> <p style="text-align: center;">-----</p> <p><u>For visually impaired students.</u></p> <p>A. Mention the stage at which the process of oogenesis temporarily gets arrested and name the cells thus formed in the ovary of a baby girl at the time of her birth.</p> <p>B. Placenta acts as a temporary endocrine tissue and forms a functional junction between the mother and foetus. Explain.</p>	3
24	<p>A. In the context of primary productivity, which ecosystem would be more productive? A natural old forest, a young forest, alpine meadow, a shallow polluted lake. Give reason.</p> <p>B. The rate of decomposition is controlled by chemical composition of detritus and climatic factors. Discuss.</p>	3
25	<p>The graphs below show three types of natural selection. The shaded areas marked with arrows show the individuals in the population which are not selected. The dotted vertical lines show the statistical means.</p>	3

- A. How many DNA molecules will be formed after three cycles of PCR?
 B. Cite specific reasons for the requirement of high temperature in step 1, primers specifically joining the 3' end of the desired gene to be amplified in step 2 and use of *Taq* polymerase instead of normal DNA polymerase in step 3.

For visually impaired students

- A. How many DNA molecules will be formed after three cycles of PCR?
 B. Cite specific reasons for the requirement of high temperature in step 1, primers specifically joining the 3' end of the desired gene to be amplified in step 2 and use of *Taq* polymerase instead of normal DNA polymerase in step 3.

SECTION D

- 29 Study the following table which differentiates between two types of pollen transfers, and answer the questions that follow with justification for each answer: 4

Code	Characteristic	Type A	Type B
P	Transfer of pollen	From anther to stigma of the same flower	From anther to the stigma of a different plant
Q	Genetic variation	Progeny is genetically pure	Progeny shows genetic variation
R	Presence of a pollinating agent	Not required, but synchronous pollen release and stigma receptivity is needed	Required for pollen transfer

- A. Name any one outbreeding device that helps prevent Type A type of pollen transfer in flowering plants.
 B. Which type of pollination is genetically similar to Type A but functionally similar to Type B?

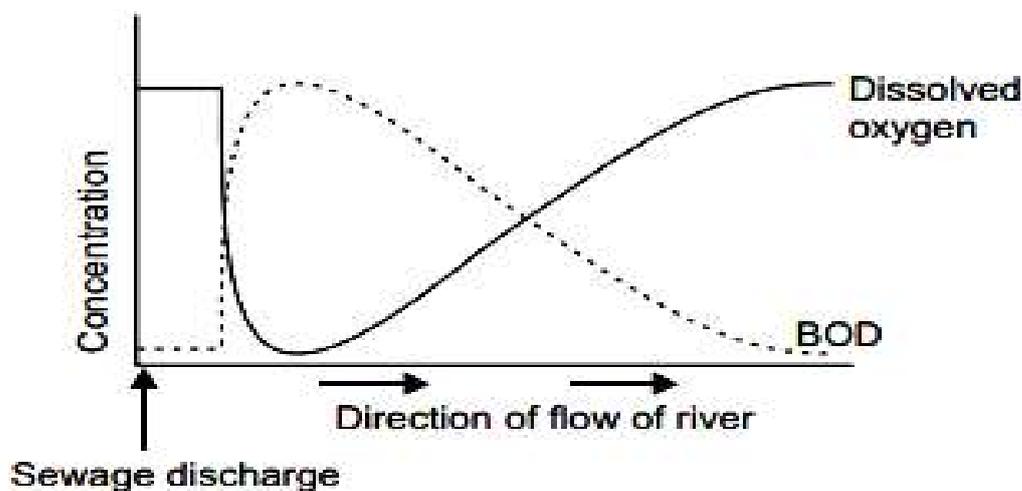
Attempt either subpart C or D.

- C. Why should Type A flowers be emasculated and bagged prior to artificial pollination?

OR

- D. Name the type of pollen transfers that may lead to inbreeding depression. Explain briefly.

- 30 Study the graph given below and answer the questions that follow: 4



- A. Expand BOD.
- B. Three water samples (X, Y, and Z) have BOD values of 20 mg/L, 8 mg/L and 400 mg/L, respectively. These samples are known to be river water, untreated sewage water, and secondary effluent from a sewage treatment plant. Which sample is the most polluted, and how would you label each sample?

Attempt either subpart C or D.

- C. Why does the level of BOD suddenly increase immediately after the sewage discharge?

OR

- D. What impact would the increase in DO (dissolved oxygen) level and decrease in BOD level have on fish and other aquatic life further downstream the flowing river?

For visually impaired students

Changes in BOD and dissolved oxygen (DO) levels in a flowing river body were observed. At the point of sewage discharge, DO suddenly decreases and BOD increases and further downstream along the direction of flow of river, their levels just got reversed.

- A. Expand BOD.
- B. Three water samples (X, Y, and Z) have BOD values of 20 mg/L, 8 mg/L and 400 mg/L, respectively. These samples are known to be river water, untreated sewage water, and secondary effluent from a sewage treatment plant. Which sample is the most polluted, and how would you label each sample?

Attempt either subpart C or D.

- C. Why does the level of BOD suddenly increase immediately after the sewage discharge?

OR

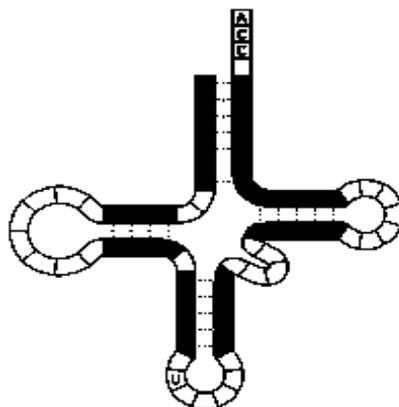
- D. What impact would the increase in DO (dissolved oxygen) level and decrease in BOD level have on fish and other aquatic life further downstream the flowing river?

SECTION E

31

- A. Below is an illustration of the secondary structure of tRNA. Also given are the following components: two amino acids Serine (Ser) and tyrosine (Tyr), four triplet ribonucleotide sequences AUG, AGU, UCA and UAC. Construct any single complete schematic assembly using given components to show that tRNA serves as an adapter molecule as postulated by Francis Crick.

5



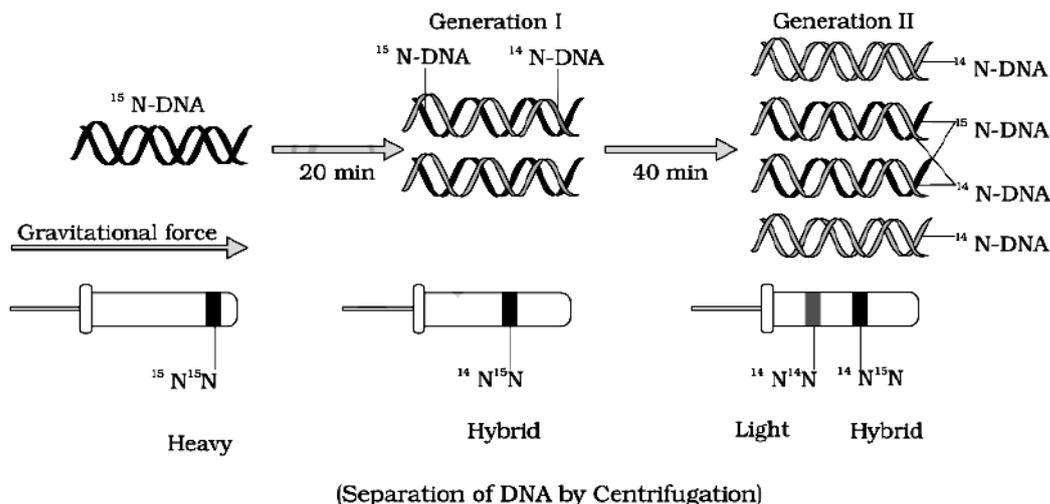
- B. What is the substrate for the synthesis of enzyme beta-galactosidase? Explain how *lac* operon is regulated for enzyme synthesis by its substrate.

For visually impaired students

- A. What are untranslated regions (UTR) in a mRNA transcript? State their significance.
- B. What is the substrate for the synthesis of enzyme beta-galactosidase? Explain how *lac* operon is regulated for enzyme synthesis by its substrate.

OR

- A. What does scheme of semiconservative model of DNA replication suggest?
- B. Replication of DNA begins at *ori*, to form a replication fork. Explain the process.
- C. The diagram below shows experimental evidence for semiconservative nature of DNA replication. If the experiment was continued for a third generation (60 minutes), what would be the ratio of hybrid DNA to light DNA?



For visually impaired students

- C. Experiment involving use of radioactive thymidine was performed and it also proved that the DNA in chromosomes replicate semi-conservatively. Name the scientists who made these similar observations in plants and name their plant.

32	<p>A. List the three molecular diagnostic techniques that help detect pathogens from suspected patients. Mention one advantage of these techniques over conventional methods.</p> <p>B. Plasmid is a boon to biotechnology. Justify this statement quoting the production of human insulin as an example.</p> <p style="text-align: center;">OR</p> <p>A. List the optimal growth conditions provided in a bioreactor for achieving the desired product.</p> <p>B. Draw a neat and well labelled diagram of a simple stirred-tank bioreactor used as a continuous culture system for producing a larger biomass leading to higher yields of desired protein.</p> <p>C. Construct a flow chart showing different steps of downstream processing.</p>	5
----	--	---

A population of 100 spotted deer was living without any carnivores in an enclosure of a few hectares of rich tropical forest land. Deer census was taken at time zero and after a few years.

- A. Draw the growth curve that represents the deer population at time zero.
- B. Is it a realistic one? Justify?
- C. Draw another growth curve to show the impact on deer population if some tigers are introduced after five years? Give reason to support your answer.
- D. 'r' is an important parameter assessing impacts of any biotic or abiotic factor on population growth. What does 'r' stand for in a population growth equation?
- E. How does the increase and decrease in the value of 'r' affect the population size?

OR

The table given below represents inter-specific interaction between two species of *Paramecia* competing for the same resource in a culture medium. *Paramecium caudatum* and *Paramecium aurelia* were grown in separate cultures as well as in mixed cultures. It was found that each species grew in numbers according to the logistic equation.

Culture conditions	Names of <i>Paramecium</i> sps.	No. of <i>Paramecium</i> sps. at different time intervals of culture initiation	
		After 8 days	After 16 days
Separate	<i>Paramecium caudatum</i>	60	60
Separate	<i>Paramecium aurelia</i>	100	100
Mixed	<i>Paramecium caudatum</i>	20	05
Mixed	<i>Paramecium aurelia</i>	80	95

- A. Which species is competitively superior?
- B. State the underlying principle for the above result and name the scientist associated with this principle.
- C. Explain the mechanism in which two or more species competing with each other can co - exist.

PREBOARD EXAMINATION-(2025-26)

CLASS: XII

SUBJECT: MATHEMATICS (041)

Time Allowed: 3 Hours

Maximum Marks: 80

General Instructions:

1. This question paper contains five sections - A, B, C, D and E. Each section is compulsory. However, there are internal choices in some questions.
2. Section A has 18 MCQ's and 02 Assertion-Reason based questions of 1 mark each.
3. Section B has 5 Very Short Answer (VSA)-type questions of 2 marks each.
4. Section C has 6 Short Answer (SA)-type questions of 3 marks each.
5. Section D has 4 Long Answer (LA)-type questions of 5 marks each.
6. Section E has 3 source based/case based/passage based/integrated units of assessment (4 marks each) with sub parts.

Q.No.	<u>SECTION – A</u> (Multiple Choice Questions) Each question carries 1 mark	Marks
1.	If $\begin{bmatrix} 3p & -6 \\ 1 & 2 \end{bmatrix}$ is a singular matrix, then the value of 'p' is : (a)2 (b)3 (c)0 (d)-1	1
2.	If A is a square matrix of order 3 and $ -2A = k A $, the value of k is (a) -8 (b) 8 (c) 4 (d) -4	1
3.	The value of λ for which the projection of $\vec{a} = \lambda\hat{i} + \hat{j} + 4\hat{k}$ on $\vec{b} = 2\hat{i} + 6\hat{j} + 3\hat{k}$ is 4 units : (a) 4 (b) 5 (c) 3 (d) 6	1
4.	The function $f(x) = \begin{cases} \frac{\sin x}{x} + \cos x, & x \neq 0 \\ k, & x = 0 \end{cases}$ is continuous at $x=0$, then the value of k is a. 3 b. 2 c. 1 d. 1.5	1
5.	The derivative of $\sec(\tan^{-1} x)$ w.r.t x is : (a) $\frac{x}{1+x^2}$ (b) $\frac{1}{\sqrt{1+x^2}}$ (c) $\frac{x}{\sqrt{1+x^2}}$ (d) $x\sqrt{1+x^2}$	1

	(a) 125 (b) 9 (c) 5 (d) $\frac{1}{5}$	
14.	If A and B are two independent events such that $P(A) = 0.4$, $P(B) = p$ and $P(A \cup B) = 0.6$, then the value of 'p' is : (a) $\frac{1}{2}$ (b) $\frac{1}{3}$ (c) $\frac{2}{3}$ (d) $\frac{1}{5}$	1
15.	The corner points of the feasible region determined by the system of linear constraints are (0,3), (1,1) and (3,0). Let $Z = px + qy$, where $p, q > 0$. Conditions on p and q so that the minimum of z occurs at (3,0) and (1,1). (a) $p = 3q$ (b) $2p = q$ (c) $p = 3q$ (d) $p = q$	1
16.	If $y = 1 - x + \frac{x^2}{2!} - \frac{x^3}{3!} + \frac{x^4}{4!} - \dots$ then $\frac{d^2y}{dx^2}$ is equal to (a) $-x$ (b) $-y$ (c) x (d) y	1
17.	If ' θ ' is the angle between two vectors \vec{a} and \vec{b} , then $ \vec{a} \cdot \vec{b} = \vec{a} \times \vec{b} $ when ' θ ' is equal to (a) 0 (b) $\frac{\pi}{4}$ (c) $\frac{\pi}{2}$ (d) π	1
18.	The direction ratios of the line $4x - 12 = 2y + 4 = 3z - 3$ are (a) 4,6,3 (b) 6,3,4 (c) 4,6,3 (d) 3,6,4	1
ASSERTION-REASON BASED QUESTIONS:		
In the following questions, a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choices.		
(a) Both A and R are true and R is the correct explanation of A.		
(b) Both A and R are true but R is not the correct explanation of A.		
(c) A is true but R is false.		
(d) A is false but R is true.		
19.	Assertion (A): The domain of the function $\sec^{-1}(2x+1)$ is $(-\infty, -1] \cup [0, \infty)$. Reason (R): $\sec^{-1}\left(-\frac{2}{\sqrt{3}}\right) = \frac{5\pi}{6}$	1

20.	<p>Assertion (A): The lines $\frac{x-5}{7} = \frac{y+2}{-5} = \frac{z}{1}$ and $\frac{x}{1} = \frac{y}{2} = \frac{z}{3}$ are perpendicular.</p> <p>Reason (R): Two lines $\frac{x-x_1}{a_1} = \frac{y-y_1}{b_1} = \frac{z-z_1}{c_1}$ and $\frac{x-x_2}{a_2} = \frac{y-y_2}{b_2} = \frac{z-z_2}{c_2}$ are perpendicular if $a_1a_2 + b_1b_2 + c_1c_2 = 0$.</p>	1
-----	--	----------

SECTION –B

(This section comprises of very short answer type questions (VSA) of 2 marks each)

21.	<p>Find the value of $\sin\left(\frac{\pi}{2} - \sin^{-1}\left(\frac{-\sqrt{3}}{2}\right)\right)$</p> <p style="text-align: center;">OR</p> <p>Show that the function $f: \mathbb{R} \rightarrow \mathbb{R}$, defined as $f(x) = x^2$, is neither one-one nor onto.</p>	2
-----	---	----------

22.	A particle moves along the curve $6y = x^3 + 2$. Find the points on the curve at which y-coordinate is changing 8 times as fast as the x-coordinate.	2
-----	---	----------

23.	<p>Evaluate : $\int \sin^3 x \, dx$</p> <p style="text-align: center;">OR</p> <p>Evaluate : $\int \frac{dx}{e^x + e^{-x}}$</p>	2
-----	---	----------

24.	If $y = 500e^{7x} + 600e^{-7x}$, then show that $\frac{d^2y}{dx^2} = 49y$.	2
-----	--	----------

25.	Find the maximum profit that a company can make, if the profit function is given by $P(x) = 72 + 42x - x^2$, where x is the number of units and P is profit in rupees.	2
-----	---	----------

SECTION –C

(This section comprises of very short answer type questions (SA) of 3 marks each)

26.	Evaluate: $\int \frac{(x-3)}{(x-1)^3} e^x dx$	3
-----	---	----------

27.	<p>A bag contains $(2n + 1)$ coins. It is known that $(n - 1)$ of these coins have a head on both sides, whereas the rest of the coins are fair. A coin is picked up at random from the bag and is tossed. If the probability that the toss results in a head is $\frac{31}{42}$, determine the value of n.</p> <p style="text-align: center;">OR</p> <p>An electric shop has two types of LED bulbs of equal quantity. The probability of an LED bulb lasting more than 6 months given that it is of type 1 is 0.7 and is given that it is</p>	3
-----	---	----------

	of type 2 is 0.4. Then find the probability that on LED bulb chosen uniformly at random lasts more than 6 months..	
28.	<p>Evaluate $\int_0^{\frac{\pi}{2}} \frac{\cos^2 x}{1+3 \sin^2 x} dx$</p> <p style="text-align: center;">OR</p> <p>Evaluate: $\int_0^{\pi} \frac{x \sin x}{1+\cos^2 x} dx$</p>	3
29.	<p>Find the particular solution of the differential equation $(1 + e^{2x}) dy + (1 + y^2)e^x dx = 0$, given that $y = 1$ when $x = 0$.</p> <p style="text-align: center;">OR</p> <p>Solve the differential equation $ye^{x/y} dx = (x e^{x/y} + y^2)dy$ ($y \neq 0$).</p>	3
30.	<p>Solve the following Linear Programming Problem graphically:</p> <p>Maximize. $Z=4x+y$</p> <p>Subject to $x + y \leq 50$; $3x + y \leq 90$; $x, y \geq 0$.</p>	3
31.	Evaluate: $\int \frac{x^2+x+1}{(x^2+1)(x+2)} dx$	3
<p><u>SECTION-D</u></p> <p>(This section comprises of long answer type questions (LA) of 5 marks each)</p>		
32.	Using integration, find the area of the region enclosed between the circle $x^2 + y^2 = 16$ and the lines $y = 1$ and $y = 2$ in the first quadrant.	5
33.	<p>Show that the relation R defined on the set $\mathbf{N} \times \mathbf{N}$ by $(a,b) R (c,d) \Rightarrow a^2 + d^2 = b^2 + c^2$ $\forall a, b, c, d \in \mathbf{N}$ is an equivalence relation</p> <p style="text-align: center;">OR</p> <p>Show that the relation R on the set $A = \{x \in \mathbf{Z} : 0 \leq x \leq 12\}$, given by $R = \{(a,b) : a-b \text{ is a multiple of } 4\}$ is an equivalence relation. Also write equivalence class [1].</p>	5
34.	<p>Use the product</p> $\begin{bmatrix} 1 & -1 & 2 \\ 0 & 2 & -3 \\ 3 & -2 & 4 \end{bmatrix} \begin{bmatrix} -2 & 0 & 1 \\ 9 & 2 & -3 \\ 6 & 1 & -2 \end{bmatrix}$ <p>to solve the system of equation</p> $x - y + 2z = 1; 2y - 3z = 1; 3x - 2y + 4z = 2$	5

35. Find the coordinates of the image of the point (2, 3, 4) with respect to the line $\vec{r} = (2\hat{j} + 4\hat{k}) + \gamma (2\hat{i} + 4\hat{j} + \hat{k})$; where γ is a scalar. Also, find the distance of the image from the origin.

5

OR

If with reference to the right handed system of mutually perpendicular unit vectors \hat{i}, \hat{j} and \hat{k} , $\vec{\alpha} = 3\hat{i} - \hat{j}$, $\vec{\beta} = 2\hat{i} + \hat{j} - 3\hat{k}$, then express $\vec{\beta}$ in the form $\vec{\beta} = \vec{\beta}_1 + \vec{\beta}_2$, where $\vec{\beta}_1$ is parallel to $\vec{\alpha}$ and $\vec{\beta}_2$ is perpendicular to $\vec{\alpha}$.

SECTION-E

This section contains three Case-study / Passage based questions. First two questions have three sub-parts (i), (ii) and (iii) of marks 1, 1 and 2 respectively. Third question has two sub-parts of 2 marks each.

36.

4



A shopkeeper sells three types of flowers seeds A_1, A_2 and A_3 . These are sold as mixture, where their proportions are 4:4:2 respectively. Also their germination rates are 45%, 60% and 35% respectively. Let A_1 : seed A_1 is chosen, A_2 : seed A_2 is chosen and A_3 : seed A_3 is chosen.

Also let E: seed germinates.

(i) Find $P(A_1), P(A_2)$ and $P(A_3)$.

(ii) Write $P(E | A_1) + P(E | A_2) + P(E | A_3)$.

(iii) Calculate the probability of a randomly chosen seed to germinate. Express the answer in %.

OR

(iii) Calculate the probability that seed is of the type A_2 given that a randomly chosen seed does not germinate.

37. **CASE STUDY II:** Read the following passage and answer the questions given below.

4



A sports stadium is elliptical in shape. The district sports administration wants to design a rectangular football field with the maximum possible area. The football field is given

by the graph of $\frac{x^2}{25} + \frac{y^2}{9} = 1$.

(i) If the length and the breadth of the rectangular field be '2x' and '2y' respectively, then find the area function in terms of 'x'.

(ii) Find the critical point of the function obtained in (i).

(iii) Use first derivative test to find the length '2x' and width '2y' of the soccer field, that will maximize its area.

OR

(iii) Use second derivative test to find the length '2x' and width '2y' of the soccer field, that will maximize its area.

38. **CASE STUDY III :** Read the following passage and answer the questions given below.

4

An airplane is flying along the line $\vec{r} = \alpha (2\hat{i} + 3\hat{j} + 4\hat{k})$; where α is a scalar and another aeroplane is flying along the line $\vec{r} = (\hat{i} + \hat{j}) + \gamma (3\hat{j} + 2\hat{k})$; where γ is a scalar.

- (i) At what points on the line should they reach, so that distance between them is shortest
- (ii) Find the shortest possible distance between them.

KENDRIYA VIDYALAYA SANGATHAN DEHRADUN REGION**Pre-Board Examination -2025-26****Class-XII****Accountancy (055)****Time- 3 Hours****Maximum Marks-80****GENERAL INSTRUCTIONS:**

1. This question paper contains 34 questions. All questions are compulsory.
2. This question paper is divided into two parts, Part A and B.
3. Question 1 to 16 and 27 to 30 carries 1 mark each.
4. Questions 17 to 20, 31 and 32 carry 3 marks each.
5. Questions from 21, 22 and 33 carries 4 marks each
6. Questions from 23 to 26 and 34 carries 6 marks each
7. There is no overall choice. However, an internal choice has been provided in 7 questions of one mark, 2 questions of three marks, 1 question of four marks and 2 questions of six marks.

Q. No.	PART-A (Accounting for Partnership Firms and Companies)	Marks
1	<p>Alok and Manish were partners sharing profits and losses in the ratio of 5:3. They admitted Deepak as a new partner for 1/3 share. Deepak is to bring 20% of the combined capital of the entire partner. Capitals of Alok and Manish after all the adjustments related to Revaluation Gain, Goodwill treatment and accumulated profits/losses were ₹ 7,40,000 and ₹ 4,60,000 respectively. Determine the Capital amount to be brought in by Deepak.</p> <p>A. ₹ 4,00,000 B. ₹ 6,00,000 C. ₹ 2,40,000 D. ₹ 3,00,000</p>	1
2	<p>Arjun and Bhim were partners in a firm sharing profits in the ratio 3:2. On 31st March 2025 their capitals were ₹ 1, 29,000 and ₹ 1, 08,000 respectively, Divisible Profits for the year ended 31st March 2025 was ₹ 50, 000. Interest on capital was also provided @10% p.a. in accordance with partnership deed. Determine interest on Arjun's Capital for the year ended 31.03.2025.</p> <p>A. ₹ 9,900 B. ₹ 9,000 C. ₹ 12,900 D. ₹ 10,400</p>	1
3	<p>Mannat Ltd. Forfeited 10,000 shares of ₹10 each on which ₹ 8(including ₹2 premium was called) and ₹5 (including ₹1 premium) was paid. Out of these 6,000 shares were re-issued. Determine the minimum amount at which these shares can be re-issued as fully paid up.</p> <p>A. ₹ 24,000 B. ₹ 36,000 C. ₹ 18,000 D. ₹ 30,000</p> <p style="text-align: center;">OR</p> <p>Jeewan Ltd. invited applications for 2, 00,000 shares of ₹ 10 each payable ₹ 5 on application, ₹ 3 on allotment and ₹ 2 on call. Public has applied for 3, 80,000 shares. Pro-rata allotment was made in the ratio 7:4. Determine the amount to be refunded by the company at the time of allotment of shares.</p>	1

	<p>A. ₹ 3,00,000 B. ₹ 9,00,000 C. ₹ 1,50,000 D. ₹ 7,50,000</p>	
4	<p>Anmol, Bhavya and Chanakya were partners in a firm sharing profit and losses in the ratio of 5:3:2. Chanakya retired and his capital balance after adjustments regarding reserves, accumulated profit & losses and his share of gain on revaluation was ₹ 2,50,000 . Chanakya was paid ₹ 3, 22,000 including his share of goodwill. The amount credited to Chanakya's capital account on his retirement, for goodwill will be:</p> <p>A. ₹72,000 B. ₹ 7,200 C. ₹ 24,000 D. ₹ 36,000</p> <p style="text-align: center;">OR</p> <p>Rey and Ley Associates is having three partners named as Rakesh, Leena and Sanjana. Their Capitals were ₹ 4, 00,000, ₹ 2, 40,000 and ₹ 1, 60,000 respectively. Sanjana retired on March 31, 2025 and sold her share of profits by taking ₹ 30,000 from Rakesh and ₹ 20,000 from Leena. Determine the new ratio.</p> <p>A.1 : 1 B.7 : 8 C.3: 2 D.8 : 7</p>	1
5	<p>Manav and Daksh were partners sharing profits and losses in the ratio of 5:3. Their firm was dissolved on March 31, 2025. On the date of dissolution, Daksh's Loan to the firm amounted to ₹ 80,000 and was settled at ₹ 75,000.</p> <p>Assertion (A) :- Daksh's Loan will be debited by ₹ 75,000 only. Reason (R) :- Daksh's Loan to be closed only by the amount paid to him.</p> <p>A. Both A and R are correct and R is the correct explanation of A. B. Both A and R are correct but R is not the correct explanation of A. C. A is incorrect but R is correct D. Both A and R are incorrect.</p>	1
6	<p>From the given hypothetical situation, answer Q 6– 8</p> <p>Floater Ltd. issued 60,000, 8% debentures of ₹ 100 each at 5% Discount and to be redeemed at 10% premium at the end of 5 year. On the date of issue, balance in Securities Premium was ₹ 8, 00,000 and Statement of Profit Loss (Dr.) was ₹ 5, 00,000.</p> <p>Loss on Issue of Debentures is to be written off as _____ out of Securities Premium and _____) out of Statement of Profit and Loss.</p> <p>A. ₹ 4,50,000 ; ₹ 4,50,000 B. ₹ 6,00,000 ; ₹ 3,00,000 C. ₹ 8,00,000 ; ₹ 1,00,000 D. ₹ 4,00,000 ; ₹ 5,00,000</p>	1
7	<p>After writing off Loss on Issue of Debentures, _____ balance in Statement of Profit and Loss will be _____</p> <p>A. Debit ; ₹ 6,00,000 B. Credit ; ₹ 6,00,000 C. Debit ; ₹ 4,00,000 D. Credit ; ₹ 4,00,000</p>	1

8	<p>Premium on Redemption of Debentures account will have a balance of _____ to be treated as _____ in the first year.</p> <p>A. ₹ 9,00,000 ; Non-Current Liabilities B. ₹ 9,00,000 ; Current Liabilities C. ₹ 6,00,000 ; Non-Current Liabilities D. ₹ 6,00,00 ; Current Liabilities</p>	1
9	<p>Rajesh, an applicant of 8,000 shares, was allotted 5,000 shares. He paid application money of ₹ 4 (including ₹ 1 premium) but failed to pay ₹ 6 on allotment (including ₹ 2 premium) and final call of ₹ 3 His shares were forfeited and out of these 3,000 shares were re-issued @ ₹ 12 per share as fully paid up.</p> <p>What amount would be reflected in Share forfeiture account upon forfeiture of shares held by Rajesh?</p> <p>A. ₹32,000 B. ₹20,000 C. ₹15,000 D. ₹27,000</p>	1
10	<p>Rohit, Virat and Shikhar were partners sharing profits and losses in the ratio 3:1:1. Their Capital balance as on March 31, 2025 was ₹ 3,00,000; ₹ 2,70,000 and ₹ 2,50,000 respectively. On the same date, they admitted Hardik as a new partner for 20% share. Hardik was to bring ₹ 80,000 for his share of goodwill and 1/5 of the combined capital of all the partners of new firm. What will be the amount of capital brought in by Hardik on his admission as a new partner?</p> <p>A. ₹ 2,25,000 B. ₹ 1,80,000 C. ₹ 2,60,000 D. ₹ 3,05,000</p> <p style="text-align: center;">OR</p> <p>A, B and C were partners sharing profits and losses equally. B died on 31 August, 2024 and total amount transferred to B's executor was ₹ 13,20,000. B's executor were being paid ₹ 1,20,000 immediately and balance was to be paid in four equal semi-annual installments together with interest @ 10% p.a. Total amount of interest to be credited to B's executors Account for the year ended March 31, 2025 will be?</p> <p>A. ₹ 70,000 B. ₹ 67,500 C. ₹ 60,000 D. ₹ 77,000</p>	1
11	<p>Read the following statements: Assertion (A) and Reason (R). Choose the correct alternative from those given below.</p> <p>Assertion: Michael, Mike and Stephen were partners sharing profits and losses in the ratio 3:2:1. Stephen being a partner wants that he should be exempted from sharing the losses in the firm.</p> <p>Reasoning: According to Partnership Act 1932, "It may be agreed between the partners that one or more of them shall not be liable for losses."</p> <p>(a) Both A and R is correct, and R is the correct explanation of A. (b) Both A and R is correct, but R is not the correct explanation of A. (c) A is correct but R is incorrect. (d) A is incorrect but R is correct.</p>	1

12	<p>On 1st April 2019 a company took a loan of ₹ 80,00,000 on security of land and building. This loan was further secured by issue of 40,000, 12% Debentures of ₹100 each as collateral security. On 31st March 2024 the company defaulted on repayment of the principal amount of this loan consequently on 1st April 2024 the land and building were taken over and sold by the bank for ₹ 70,00,000. For the balance amount debentures were sold in the market on 1st May 2024. From which date would the interest on debentures become payable by the company?</p> <p>A.1st April 2019. B.31st March 2024. C.1st April 2024. D.1st May 2024.</p>	1												
13	<p>Assertion (A):- Goodwill share brought in by new partners is distributed amongst old partners in old ratio. Reason (R) :- Gaining Partner will be compensated by Sacrificing Partners in ratio of their sacrifice.</p> <p>A. Both A and R are correct B. Both A and R are incorrect C. Only A is correct D. Only R is correct</p>	1												
14	<p>Mike and Ken were two partners sharing profits and losses in the ratio 4:3. Ken was in need of funds so he took a loan of ₹ 50, 000 from the firm at an agreed rate of interest being 10% p.a. If Interest is charged on loan to the partner it will be:</p> <p>(a) Debited to Profit and Loss A/c (b) Credited to Profit and Loss A/c (c) Debited to Profit and Loss Appropriation A/c (d) Credited to Profit and Loss Appropriation A/c</p> <p style="text-align: center;">OR</p> <p>Stella, Grace and Carol were partners in the firm sharing profits and losses in the ratio 3:2:1. Carol was guaranteed a profit of 15,000 after making all adjustments. Any deficiency is to be borne by Grace. The net profit for the year 31st March 2025 was ₹60,000. Grace will be _____ by ₹_____.</p> <p>(a) Credited, ₹6,500. (b) Debited, ₹5,000. (c) Credited, ₹7,500. (d) Debited, ₹ 2,500.</p>	1												
15	<p>P, Q and R were partners sharing profits and losses in the ratio 5:3:2. With effect from 1st April 2025 they decided to share future profits and losses in different ratio. On that date profit and loss account appearing on the asset side of the balance sheet was ₹ 4,00,000 and following entry was passed:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 20px;">P's Capital A/c</td> <td style="padding-right: 20px;">Dr.</td> <td style="padding-right: 20px;">₹ 25,000</td> <td></td> </tr> <tr> <td></td> <td></td> <td>To Q's Capital A/c</td> <td style="text-align: right;">₹ 5,000</td> </tr> <tr> <td></td> <td></td> <td>To R's Capital A/c</td> <td style="text-align: right;">₹ 20,000</td> </tr> </table> <p>Find new Ratio.</p> <p>A.45 : 23 : 12 B.7 : 5 : 4 C.2 : 1 : 1 D.1 : 1 : 1</p>	P's Capital A/c	Dr.	₹ 25,000				To Q's Capital A/c	₹ 5,000			To R's Capital A/c	₹ 20,000	1
P's Capital A/c	Dr.	₹ 25,000												
		To Q's Capital A/c	₹ 5,000											
		To R's Capital A/c	₹ 20,000											

	OR	
	<p>Eena, Meena and Deeka are partners sharing profits and losses in the ratio 5:4:1. Meena retired on 31st March 2023 and her dues came out to be ₹ 7,20,000. Amount of ₹ 1,20,000 was paid immediately and balance was to be paid in three equal annual installments together with interest @ 10% per annum. Determine the amount payable to Meena on 31st March 2025.</p> <p>A. ₹ 2,00,000 B. ₹ 2,60,000 C. ₹ 2,40,000 D. ₹ 2,88,000</p>	
16	<p>Workmen Compensation Reserve was appearing in the Balance Sheet at ₹ 4,00,000. At the time of admission of partner Sohail, claim for workmen compensation was ₹ 4,50,000. Determine the amount to be shown in Revaluation Account.</p> <p>A. Debited ₹ 4,50,000 B. Credited ₹ 4,00,000 C. Debited ₹ 50,000 D. Credited ₹ 50,000</p>	1
17	<p>Raju and Rinku were partners sharing profits and losses in the ratio 3:2. They admitted Sumit as a new partner for 1/3 share. On the date of admission Capitals of Raju and Rinku were ₹ 5, 50,000 and ₹ 6, 50,000 respectively, also, General Reserve of ₹ 3,00,000 and Profit and Loss (Dr.) balance of ₹ 1,00,000 were appearing in the books of accounts. Firm made average profits of ₹ 2, 40,000 during the last few years and the normal rate of earning was expected to be 12%.</p> <p>Calculate the Goodwill of the firm by Capitalization Method.</p> <p style="text-align: center;">OR</p> <p>Shikha, Shweta and Manisha were partners sharing profits and losses in the ratio of 5:3:2. They admitted Pooja into partnership for 25% share. Shikha, Shweta and Manisha decided to share future profits and losses equally. Pooja brings in Capital of ₹ 8,00,000 and ₹ 1,50,000 out of her goodwill share of ₹ 2,50,000.</p> <p>Pass necessary entries at the time of Pooja's admission.</p>	3
18	<p>Rusting, a partner of a firm under dissolution was to get a remuneration 2% of the total assets realised other than cash and 10% of the amount distributed to the partners Sundry assets (including Cash ₹ 8,000) realised at ₹ 1,16,000 and sundry liabilities to be paid ₹ 31,340.</p> <p>Calculate Rustings's remuneration and Show your workings clearly. Also pass necessary journal entry for remuneration.</p>	3
19	<p>Bat, Cat and Rat were partners sharing profits and losses in the ratio 5:3:2. Cat retired and on that date there was a balance of Investment of ₹ 4,00,000 and Investment Fluctuation Reserve of ₹ 1,00,000 was appearing in the balance sheet.</p> <p>Pass necessary journal entries for Investment Fluctuation reserve in the following cases.</p> <p>(i) Market Value of Investments was ₹ 4,80,000. (ii) Market Value of Investments was ₹ 3,80,000. (iii) Market Value of Investments was ₹ 2,90,000</p>	3

20	<p>Buddha Limited took over assets of ₹ 40,00,000 and liabilities of ₹ 6,50,000 of Ginny Limited. Buddha Limited issued 30,000, 8% Debentures of ₹ 100 each at 10% discount, to be redeemed at 5% premium along with cheque of ₹ 5,00,000.</p> <p>Pass necessary journal entries in the books of Buddha Ltd.</p> <p style="text-align: center;">OR</p> <p>A company forfeited 8,000 shares of ₹ 10 each on which ₹ 8 were called (including ₹ 1 premium) and ₹ 6 was paid (including ₹ 1 premium). Out of these 5,000 shares were re-issued at maximum possible discount.</p> <p>Pass necessary journal entries.</p>	3																																								
21	<p>Sapphire Ltd. Was registered with an authorized capital of ₹ 80,00,000 divided into 4,00,000 shares of ₹ 20 each. Company offered and issued 1,50,000 shares at a premium of ₹ 4 per share payable as ₹ 7 on application (including ₹ 1 premium), ₹ 12 on allotment (including ₹ 2 premium) and balance on first call. Rancho, holding 10,000 shares failed to pay allotment and call money. Another shareholder Sultan holding 5,000 shares failed to pay the call money.</p> <p>All the shares held by Rancho were forfeited and of these 8,000 were reissued at ₹ 22 per share as fully paid.</p> <p>Show Share Capital sub head as it would in the Balance Sheet of Sapphire ltd. along with notes to Account as per the Companies Act 2013.</p>	4																																								
22	<p>Alok and Manish were partners sharing profits and losses in the ratio of 5:3. For the year ended March 31, 2025 it was observed that profits of ₹80,000 were distributed equally without providing for Salary of ₹ 5,000 p.m. to Alok and Commission of ₹ 40,000 to Manish.</p> <p>You are required to pass necessary adjustment entry. Show working notes clearly.</p>	4																																								
23	<p>The Balance sheet of P, Q and R who were sharing profits and losses in the ratio 5:3:2 as at 31st March 2025</p> <table border="1"> <thead> <tr> <th>Liabilities</th> <th>₹</th> <th>Assets</th> <th>₹</th> </tr> </thead> <tbody> <tr> <td>Creditors</td> <td>50,000</td> <td>Bank</td> <td>40,000</td> </tr> <tr> <td>Employee Provident Fund</td> <td>10,000</td> <td>Stock</td> <td>80,000</td> </tr> <tr> <td>Profit & Loss a/c</td> <td></td> <td>Debtor</td> <td>1,00,000</td> </tr> <tr> <td>Capital A/c:-</td> <td>85,000</td> <td>Fixed Assets</td> <td>60,000</td> </tr> <tr> <td>P-40,000</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Q-62,000</td> <td></td> <td></td> <td></td> </tr> <tr> <td>R-33,000</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>1,35,000</td> <td></td> <td></td> </tr> <tr> <td></td> <td>2,80,000</td> <td></td> <td>2,80,000</td> </tr> </tbody> </table> <p>P retired on 31st March 2025 and Q and R decided to share profits in future in the ratio of 2:3 respectively. The other terms on retirement were as follows:</p> <ol style="list-style-type: none"> i Goodwill of firm is to be valued at ₹ 80,000. ii Fixed assets are to be depreciated by ₹ 2,500. iii A provision for doubtful debts on debtors was to be provided for ₹ 5,000. iv A liability for claim included in creditors for ₹10,000 is settled at ₹8,000 and immediately paid by cheque. v The amount will be paid to P in the following manner: Q will contribute ₹1,150 and R will and maintaining a minimum balance of ₹15,000 in Bank account. <p>Pass necessary journal entries.</p>	Liabilities	₹	Assets	₹	Creditors	50,000	Bank	40,000	Employee Provident Fund	10,000	Stock	80,000	Profit & Loss a/c		Debtor	1,00,000	Capital A/c:-	85,000	Fixed Assets	60,000	P-40,000				Q-62,000				R-33,000					1,35,000				2,80,000		2,80,000	6
Liabilities	₹	Assets	₹																																							
Creditors	50,000	Bank	40,000																																							
Employee Provident Fund	10,000	Stock	80,000																																							
Profit & Loss a/c		Debtor	1,00,000																																							
Capital A/c:-	85,000	Fixed Assets	60,000																																							
P-40,000																																										
Q-62,000																																										
R-33,000																																										
	1,35,000																																									
	2,80,000		2,80,000																																							

24	<p>(a) Futura Ltd. took over the business of Penta Ltd. comprising assets worth ₹ 40,00,000 and liabilities worth ₹6,00,000 for a purchase consideration of ₹30,00,000. ₹ 5,00,000 is paid by cheque and balance by issuing equity shares of ₹ 100 each at 25% premium. Pass Journal entries in the book of Futura Ltd.</p> <p>(b) Trilok Ltd issued 1,00,000 equity shares of ₹10 each at a premium of ₹ 2 per share payable ₹3 per share on application, ₹ 5 per share (including premium) on allotment, ₹2 per share on the first call and the balance on the second call. Rahim was allotted 1,600 shares.</p> <p>Give necessary journal entries for forfeiture in the books of the company when Rahim could not pay the allotment and the first call money and his shares were forfeited after the first call.</p>	6
-----------	---	----------

25	<p>Aman and Biswas were partners sharing profits and losses in the ratio of 3:2. They admitted Chetan as a new partner for 25% share. Balance sheet of Aman and Biswas was as follows on March 31, 2025.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Liabilities</th> <th style="text-align: center;">₹</th> <th style="text-align: center;">Assets</th> <th style="text-align: center;">₹</th> </tr> </thead> <tbody> <tr> <td>Creditors</td> <td style="text-align: right;">50,000</td> <td>Bank</td> <td style="text-align: right;">40,000</td> </tr> <tr> <td>Employee Provident Fund</td> <td style="text-align: right;">60,000</td> <td>Stock</td> <td style="text-align: right;">60,000</td> </tr> <tr> <td>General Reserve</td> <td style="text-align: right;">40,000</td> <td>Debtors</td> <td style="text-align: right;">1,00,000</td> </tr> <tr> <td>Investment fluctuation Reserve</td> <td style="text-align: right;">50,000</td> <td>(-) prov.for doubt. debts(10,000)</td> <td style="text-align: right;">90,000</td> </tr> <tr> <td>Aman's Capital</td> <td style="text-align: right;">2,00,000</td> <td>Furniture</td> <td style="text-align: right;">1,20,000</td> </tr> <tr> <td>Biswas's Capital</td> <td style="text-align: right;">1,50,000</td> <td>Building</td> <td style="text-align: right;">1,60,000</td> </tr> <tr> <td></td> <td></td> <td>Investment</td> <td style="text-align: right;">50,000</td> </tr> <tr> <td></td> <td></td> <td>Goodwill</td> <td style="text-align: right;">30,000</td> </tr> <tr> <td></td> <td style="text-align: right;">5,50,000</td> <td></td> <td style="text-align: right;">5,50,000</td> </tr> </tbody> </table> <p>Chetan was admitted on the following terms :-</p> <ol style="list-style-type: none"> (i) Market value of Investment is ₹ 20,000. (ii) There was a bad debts amounting to ₹ 6,000 and provision for doubt. Debts are to be maintained at ₹ 9,000. (iii) Building was undervalued by 20%. (iv) Stock was overvalued by 20%. (v) Goodwill of the firm was valued at ₹ 1, 00,000 and Chetan brings his share of goodwill in cash. (vi) Chetan was to bring ₹1,30,000 as capital. <p>Prepare Revaluation Account and Partner's Capital Account.</p> <p style="text-align: center;">OR</p> <p>Meghna, Mehak and Mandeep were partners in a firm whose Balance Sheet as on 31st March, 2025 was as under:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Liabilites</th> <th style="text-align: center;">₹</th> <th style="text-align: center;">Assets</th> <th style="text-align: center;">₹</th> </tr> </thead> <tbody> <tr> <td>Creditors</td> <td style="text-align: right;">28,000</td> <td>Cash</td> <td style="text-align: right;">27,000</td> </tr> <tr> <td>General Reserve</td> <td style="text-align: right;">75,00</td> <td>Debtors</td> <td style="text-align: right;">20,000</td> </tr> <tr> <td>Capitals</td> <td></td> <td>Stock</td> <td style="text-align: right;">28,000</td> </tr> <tr> <td> Meghna</td> <td style="text-align: right;">20,000</td> <td>Furniture</td> <td style="text-align: right;">5,000</td> </tr> <tr> <td> Mehak</td> <td style="text-align: right;">14,500</td> <td></td> <td></td> </tr> <tr> <td> Mandeep</td> <td style="text-align: right;">10,000</td> <td></td> <td></td> </tr> <tr> <td></td> <td style="text-align: right;">80,000</td> <td></td> <td style="text-align: right;">80,000</td> </tr> </tbody> </table>	Liabilities	₹	Assets	₹	Creditors	50,000	Bank	40,000	Employee Provident Fund	60,000	Stock	60,000	General Reserve	40,000	Debtors	1,00,000	Investment fluctuation Reserve	50,000	(-) prov.for doubt. debts(10,000)	90,000	Aman's Capital	2,00,000	Furniture	1,20,000	Biswas's Capital	1,50,000	Building	1,60,000			Investment	50,000			Goodwill	30,000		5,50,000		5,50,000	Liabilites	₹	Assets	₹	Creditors	28,000	Cash	27,000	General Reserve	75,00	Debtors	20,000	Capitals		Stock	28,000	Meghna	20,000	Furniture	5,000	Mehak	14,500			Mandeep	10,000				80,000		80,000	6
Liabilities	₹	Assets	₹																																																																							
Creditors	50,000	Bank	40,000																																																																							
Employee Provident Fund	60,000	Stock	60,000																																																																							
General Reserve	40,000	Debtors	1,00,000																																																																							
Investment fluctuation Reserve	50,000	(-) prov.for doubt. debts(10,000)	90,000																																																																							
Aman's Capital	2,00,000	Furniture	1,20,000																																																																							
Biswas's Capital	1,50,000	Building	1,60,000																																																																							
		Investment	50,000																																																																							
		Goodwill	30,000																																																																							
	5,50,000		5,50,000																																																																							
Liabilites	₹	Assets	₹																																																																							
Creditors	28,000	Cash	27,000																																																																							
General Reserve	75,00	Debtors	20,000																																																																							
Capitals		Stock	28,000																																																																							
Meghna	20,000	Furniture	5,000																																																																							
Mehak	14,500																																																																									
Mandeep	10,000																																																																									
	80,000		80,000																																																																							

	<p>Mehak retired on this date under following terms:</p> <ol style="list-style-type: none"> (i) To reduce stock and furniture by 5% and 10% respectively. (ii) To provide for doubtful debts at 10% on debtors (iii) Goodwill was valued at ₹12,000. (iv) Creditors of ₹8,000 were settled at ₹7,100. (v) Mehak should be paid off and the entire sum payable to Mehak shall be brought in by Meghna and Mandeep in such a way that their capitals should be in their new profit-sharing ratio and a balance of ₹25,000 is maintained in the cash account. <p>Prepare Revaluation Account and partner's capital accounts of the new firm.</p>	
26	<p>Priyanshu Ltd invited applications for issuing 80,000 equity shares of ₹ 100 each at a premium of ₹ 10. The amount was payable as follows: On Application – ₹ 30 ; On allotment – ₹ 30 (including a premium of ₹ 10) ; On first call – balance</p> <p>Applications of 2,30,000 shares were received. Allotment was made on pro- rata basis to applicants of 1,80,000 shares and remaining were sent letters of regret. Excess money on application was to be utilised towards allotment and subsequent calls.</p> <p>David, who was allotted 1,600 shares, paid nothing after application. These shares were forfeited after the first call. 1,000 of these shares were re-issued to Sundar for ₹ 95 per share as fully paid.</p> <p>Pass necessary journal entries in books of Priyanshu Ltd.</p> <p style="text-align: center;">OR</p> <p>Pritam Ltd invited applications for issuing 1, 20,000 shares of ₹10 each at a premium of ₹3. The amount was payable as follows: On Application – ₹ 4 (including ₹ 1 premium) ; On allotment – ₹ 5 (including ₹1 premium) ; On first call – balance</p> <p>Applications of 1,80,000 shares were received. Allotment made as under: Applicants of 90,000 shares Allotted 80,000 shares. Applicants of 50,000 shares Allotted 40,000 shares Remaining applications were rejected.</p> <p>Ruhi, an applicant of 4,500 shares(out of group applying for 90,000 shares) and Mukti , the holder of 6,000 shares (out of group applying for 50,000 shares) failed to pay allotment money and their shares were immediately forfeited and later on re-issued 8,000 shares @ ₹ 7 per share as ₹ 6 paid up. Re issued shares included all shares of Ruhi .</p> <p>Pass necessary journal entries in books of Pritam Ltd by opening call in arrears account.</p>	6
	PART-B (Analysis of Financial Statements)	
27	<p>Current Ratio of the company is 1:1. Which of the following will not affect the Current Ratio but decrease the Quick Ratio?</p> <ol style="list-style-type: none"> A. Purchase of goods on credit B. Sale of goods on credit at no profit no loss C. Issue of debentures to vendor D. Dividend proposed by the directors 	1

28	<p>Which of the following is not limitation of analysis of financial statements:</p> <p>a) Window dressing b) Price level changes ignored c) Subjectivity d) Intra -firm comparison possible</p> <p style="text-align: center;">OR</p> <p>Which of the following is not an objective of Analysis of financial statements?</p> <p>a) To judge the financial health of the firm b) To judge the short term and long-term liquidity position of the firm c) To judge the reason for change in the profitability of the firm d) To judge the variations in the accounting practices of the business followed by different enterprises</p>	1									
29	<p>Read the following information:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 35%; text-align: center;">31st March 2024</th> <th style="width: 35%; text-align: center;">31st March 2025</th> </tr> </thead> <tbody> <tr> <td>Plant and Machinery (Cost)</td> <td style="text-align: right;">₹ 20,00,000</td> <td style="text-align: right;">₹ 30,00,000</td> </tr> <tr> <td>Accumulated Depreciation</td> <td style="text-align: right;">₹ 4,80,000</td> <td style="text-align: right;">₹ 5,90,000</td> </tr> </tbody> </table> <p>During the year a part of machinery book value ₹ 2,00,000 was sold for ₹ 1,10,000. Depreciation charged during the year was ₹ 1,50,000.</p> <p>Determine the amount to be shown under non-cash and non-operating expenses while preparing cash flow statement.</p> <p>A. ₹ 1,50,000 B. ₹ 2,00,000 C. ₹ 2,40,000 D. ₹ 50,000</p> <p style="text-align: center;">OR</p> <p>Read the following Statements:</p> <p>Statement I: Rent received by a real estate company is an operating activity. Statement II: Dividend paid by a finance company is financing activity. Statement III: Current Investment is considered as Cash and Cash Equivalents while preparing cash flow statement.</p> <p>Choose the correct option:</p> <p>A. Only statement I and II are correct B. Only statement II and III are correct C. Only statement I and III are correct D. All statements are correct</p>		31st March 2024	31st March 2025	Plant and Machinery (Cost)	₹ 20,00,000	₹ 30,00,000	Accumulated Depreciation	₹ 4,80,000	₹ 5,90,000	1
	31st March 2024	31st March 2025									
Plant and Machinery (Cost)	₹ 20,00,000	₹ 30,00,000									
Accumulated Depreciation	₹ 4,80,000	₹ 5,90,000									
30	<p>While preparing Cash Flow Statement, which of the following transactions will affect the cash flow from Investing activities.</p> <p>A. Loss on issue of debentures written off from securities premium B. Goodwill purchased C. Building Purchased by issue of Debentures as consideration D. Issue of Bonus shares</p>	1									

31	<p>Complete the Comparative Statement of Profit and Loss:</p> <table border="1"> <thead> <tr> <th>Particulars</th> <th>2023-24</th> <th>2024-2025</th> <th>Absolute change</th> <th>% Change</th> </tr> </thead> <tbody> <tr> <td>Revenue from Operations</td> <td>16,00,000</td> <td>20,00,000</td> <td>?</td> <td>?</td> </tr> <tr> <td>Less: Employees Benefit Expenses</td> <td>8,00,000</td> <td>?</td> <td>?</td> <td>25%</td> </tr> <tr> <td>Less: Other Expenses</td> <td>2,00,000</td> <td>?</td> <td>(1,00,000)</td> <td>?</td> </tr> <tr> <td>Profit before tax</td> <td>6,00,000</td> <td>?</td> <td>?</td> <td>50%</td> </tr> <tr> <td>Tax @30%</td> <td>?</td> <td>?</td> <td>90,000</td> <td>?</td> </tr> <tr> <td>Profit after tax</td> <td>4,20,000</td> <td>?</td> <td>2,10,000</td> <td>?</td> </tr> </tbody> </table>	Particulars	2023-24	2024-2025	Absolute change	% Change	Revenue from Operations	16,00,000	20,00,000	?	?	Less: Employees Benefit Expenses	8,00,000	?	?	25%	Less: Other Expenses	2,00,000	?	(1,00,000)	?	Profit before tax	6,00,000	?	?	50%	Tax @30%	?	?	90,000	?	Profit after tax	4,20,000	?	2,10,000	?	3																																													
Particulars	2023-24	2024-2025	Absolute change	% Change																																																																														
Revenue from Operations	16,00,000	20,00,000	?	?																																																																														
Less: Employees Benefit Expenses	8,00,000	?	?	25%																																																																														
Less: Other Expenses	2,00,000	?	(1,00,000)	?																																																																														
Profit before tax	6,00,000	?	?	50%																																																																														
Tax @30%	?	?	90,000	?																																																																														
Profit after tax	4,20,000	?	2,10,000	?																																																																														
32	<p>State the head and sub head under which the following items are shown in the Balance Sheet of a company as per Companies Act 2013.</p> <p>Bank overdraft Prepaid insurance Calls in advance Loose tools land & building Securities Premium</p>	3																																																																																
33	<p>Calculate Gross Profit Ratio from the following informations - Revenue from Operations ₹ 10,00,000; Purchases ₹ 3,60,000; Carriage Inwards ₹ 50,000; Employee benefit Expenses ₹ 1,00,000 (including Wages of ₹ 60,000); Opening Inventory ₹ 60,000 and Average Inventory ₹ 80,000.</p> <p style="text-align: center;">OR</p> <p>Profit after tax amounted to ₹ 6, 00,000, and tax rate was 20%. If earnings before interest and tax was ₹ 10,00,000 and Nominal Value of Debentures amounted to ₹ 25,00,000 (assuming the only debt of the company), determine the rate of interest on debentures</p>	4																																																																																
34	<p>Following is the Balance Sheet of Johnson Limited as at 31st March 2025:</p> <table border="1"> <thead> <tr> <th>Particular</th> <th>Note No.</th> <th>31.03.2025</th> <th>31.03.2024</th> </tr> </thead> <tbody> <tr> <td colspan="4">Equity and liabilities</td> </tr> <tr> <td colspan="4">1. Shareholders' Funds</td> </tr> <tr> <td>a)Share Capital</td> <td></td> <td>3,00,000</td> <td>1,00,000</td> </tr> <tr> <td>b)Reserve and Surplus</td> <td></td> <td>25,000</td> <td>1,20,000</td> </tr> <tr> <td colspan="4">2.Non-current liabilities</td> </tr> <tr> <td>Long term Borrowings</td> <td></td> <td>80,000</td> <td>60,000</td> </tr> <tr> <td colspan="4">3.Current Liabilities</td> </tr> <tr> <td>a) Trade payables</td> <td></td> <td>6,000</td> <td>20,000</td> </tr> <tr> <td>b) Short term provisions</td> <td></td> <td>68,000</td> <td>70,000</td> </tr> <tr> <td>Total</td> <td></td> <td>4,79,000</td> <td>3,70,000</td> </tr> <tr> <td colspan="4">Assets</td> </tr> <tr> <td colspan="4">1.Non-current Assets</td> </tr> <tr> <td>Property ,plant and equipments</td> <td></td> <td>3,36,000</td> <td>1,92,000</td> </tr> <tr> <td colspan="4">2.Current Assets</td> </tr> <tr> <td>a)Inventories</td> <td></td> <td>67,000</td> <td>60,000</td> </tr> <tr> <td>b)Trade Receivables</td> <td></td> <td>51,000</td> <td>65,000</td> </tr> <tr> <td>c)Cash and cash equivalents</td> <td></td> <td>25,000</td> <td>49,000</td> </tr> <tr> <td>d)Other Current Assets</td> <td></td> <td>-----</td> <td>4,000</td> </tr> <tr> <td>Total</td> <td></td> <td>4,79,000</td> <td>3,70,000</td> </tr> </tbody> </table>	Particular	Note No.	31.03.2025	31.03.2024	Equity and liabilities				1. Shareholders' Funds				a)Share Capital		3,00,000	1,00,000	b)Reserve and Surplus		25,000	1,20,000	2.Non-current liabilities				Long term Borrowings		80,000	60,000	3.Current Liabilities				a) Trade payables		6,000	20,000	b) Short term provisions		68,000	70,000	Total		4,79,000	3,70,000	Assets				1.Non-current Assets				Property ,plant and equipments		3,36,000	1,92,000	2.Current Assets				a)Inventories		67,000	60,000	b)Trade Receivables		51,000	65,000	c)Cash and cash equivalents		25,000	49,000	d)Other Current Assets		-----	4,000	Total		4,79,000	3,70,000	6
Particular	Note No.	31.03.2025	31.03.2024																																																																															
Equity and liabilities																																																																																		
1. Shareholders' Funds																																																																																		
a)Share Capital		3,00,000	1,00,000																																																																															
b)Reserve and Surplus		25,000	1,20,000																																																																															
2.Non-current liabilities																																																																																		
Long term Borrowings		80,000	60,000																																																																															
3.Current Liabilities																																																																																		
a) Trade payables		6,000	20,000																																																																															
b) Short term provisions		68,000	70,000																																																																															
Total		4,79,000	3,70,000																																																																															
Assets																																																																																		
1.Non-current Assets																																																																																		
Property ,plant and equipments		3,36,000	1,92,000																																																																															
2.Current Assets																																																																																		
a)Inventories		67,000	60,000																																																																															
b)Trade Receivables		51,000	65,000																																																																															
c)Cash and cash equivalents		25,000	49,000																																																																															
d)Other Current Assets		-----	4,000																																																																															
Total		4,79,000	3,70,000																																																																															

Notes To Accounts:-

Particulars	31.3.2025	31.03.2024
1.Reserves and Surplus		
Surplus i.e Balance in statement of Profit and Loss	25,000	1,20,000
	25,000	1,20,000
2.Long term Borrowings		
10% Long term Loan	80,000	60,000
	80,000	60,000
3.Short -term Provisions		
Provision for Tax	68,000	70,000
	68,000	70,000
4.Fixed Assets		
Machinery	3,84,000	2,15,000
Less-Accumulated Depreciation	(48,000)	(23,000)
Total	3,36,000	1,92,000

Additional Informations:

- a) Additional loan was taken on 1st July, 2024.
- b) Tax of ₹53,000 was paid during the year.

Prepare Johnson Ltd.'s Cash Flow Statement for the year ended March 31, 2025

7	<p>Which of the following statement(s) would give an error after executing the following code?</p> <pre>D={'rno':32,'name':'Ms Archana','subject':['hindi','english','cs'],'marks':(85,75,89)}#S1 print(D) #S2 D['subject'][2]='IP' #S3 D['marks'][2]=80 #S4 print(D) #S5</pre> <p>a. S1 b. S3 c. S4 d. S3 and S4</p>	1
8	<p>Which of the following operations on a string will generate an error?</p> <p>a. "PYTHON"*2 b. "PYTHON" + "10" c. "PYTHON" + 10 d. "PYTHON" + "PYTHON"</p>	1
9	<p>Write the output:-</p> <pre>myTuple = ("John", "Peter", "Vicky") x = "#".join(myTuple) print(x)</pre> <p>a. #John#Peter#Vicky b. John#Peter#Vicky c. John#Peter#Vicky# d. #John#Peter#Vicky#</p>	1
10	<p>Study the following program and select the possible output(s).</p> <pre>import random X= random.random() Y= random.randint(0,4) print(int(X),":",Y+int(X))</pre> <p>a. 0 : 0 b. 1 : 6 c. 2 : 4 d. 0 : 3</p>	1
11	<p>The device used to amplify the transmitted signal in a network is _____.</p> <p>a. modem b. repeater c. gateway d. switch</p>	1
12	<p>Predict the output of the Python code given below:</p> <pre>value = 50 def display(N): global value value = 25 if N%7==0: value = value + N else: value = value - N print(value, end="#") display(20) print(value)</pre> <p>a. 50#5 b. 50#25 c. 25#5 d. 25#50</p>	1
13	<p>State whether the following statement is True or False: An exception in a program arises only when the user does not provide correct input.</p>	1
14	<p>Which of the following statements is FALSE about a relational database?</p> <p>a. A column can contain more than one values. b. The ordering of rows in a relation is immaterial. c. Column names in a relation should be unique. d. Primary key in a relation can comprise of more than one column.</p>	1

15	In case of _____ switching the data is divided into equal size packets and then transmitted via communication channel.	1
16	What will be the output of the following Python statement: print(10-3**2**2+144/12)	1
17	What will be the output of the following Python code? try: x = 10 / 0 except Exception: print("Some other error!") except ZeroDivisionError: print("Division by zero error!") a) Division by zero error! b) Some other error! c) ZeroDivisionError d) Nothing is printed	1
18	What will be the output of the following Python code? str= "Soft Skills" print(str[-3::-3]) a) lSf b) Stkl c) StKi d) l	1
19	In SQL, a relation consists of 5 columns and 6 rows. If 2 columns and 3 rows are added to the existing relation, what will be the updated degree of a relation? a) Degree: 7 b) Degree: 8 c) Degree: 9 d) Degree: 6	1
	Q20 and 21 are ASSERTION AND REASONING based questions. Mark the correct choice as (a) Both A and R are true and R is the correct explanation for A (b) Both A and R are true and R is not the correct explanation for A (c) A is True but R is False (d) A is false but R is True	
20	Assertion (A): A primary key must be unique and cannot have NULL values. Reasoning (R): The primary key uniquely identifies each row in the table.	1
21	Assertion (A): In binary files, the data is stored in the file in the same format as it is stored in the memory. Reason (R): A special newline character is used to mark the end of each line in a binary file.	1
<u>SECTION B (7 X 2 = 14 Marks)</u>		
22	Differentiate between mutable and immutable data type in python. Give one example of each. OR Explain the difference between while loop and for loop in python with suitable example.	2
23	Vivek has written a code to input a number and check whether it is even or odd number. His code is having errors. Rewrite the correct code and underline the corrections made. Def checkNumber(N): status = N%2 return #main-code num=int(input(Enter a number to check :)) k=checkNumber(num) if k = 0: print("This is EVEN number") else: print("This is ODD number")	2

24	<p>Write the Python statement for each of the following tasks using BUILT-IN functions/methods only:</p> <p>(i) To add an element 20 at the end of the list L1.</p> <p>(ii) To print the list of all words in a string called ESSAY.</p> <p style="text-align: center;">OR</p> <p>Predict the output of the Python code given below:</p> <pre>def Diff(N1,N2): if N1>N2: return N1-N2 else: return N2-N1 NUM= [10,23,14,54,32] for CNT in range (4,0,-1): A=NUM[CNT] B=NUM[CNT-1] print(Diff(A,B),'#', end=' ')</pre>	1+1= 2
25	<p>Write a function countAll(PLACES) in Python, that takes the dictionary, PLACES as an argument and displays the names of the places that start with a vowel. For example, Consider the following dictionary PLACES={1:"India",2:"Paris",3:"China",4:"Osaka",5:"Dhaka"}</p> <p>The output should be:</p> <p>India Osaka</p> <p style="text-align: center;">OR</p> <p>Write a function, CutWords(TUP), that takes a tuple of string as argument and returns a list containing the string with their first character removed.</p> <p>For example, if the tuple is ("Mohit", "Paras", "Hamid", "Sujata"), the list will be ["ohit", "aras", "amid", "ujata"]</p>	2
26	<p>Predict the output of the Python code given below:</p> <pre>data=["L",20,"M",40,"N",60] times=0 alpha="" add=0 for c in range(1,6,2): times = times + c alpha = alpha + data [c-1] + "@" add = add + data[c] print (times, add, alpha)</pre>	2
27	<p>Rajshri has just created a table named "Library" containing the columns book_id, name, price, publisher.</p> <p>After creating the table, she realized that she has assigned int data type to price but many books have price in decimal. Help her in writing an SQL command to change the data type of price column.</p> <p>Thereafter, write the command to delete the record having book_id as 1003.</p>	2

	OR	
	Kushal is working in a database named EDUCATION, in which he has created a table named “Exam”. After successfully creating the table, he now wants to add a new column named Remarks of data type string in the table and also wants to make the existing column named exam_id as primary key. Help him write the commands to complete both the tasks.	
28	<p>(i) Expand the following terms: SMTP , VoIP</p> <p>(ii) Give one difference between Hub and Switch.</p> <p style="text-align: center;">OR</p> <p>(i) Define the term protocol with respect to networks.</p> <p>(ii) What is the role of gateway in a network?</p>	1+1= 2
SECTION C (3 X 3 = 9 Marks)		
29	<p>Write a function in Python to read a text file, “Assembly.txt” and display those words which begin with the character ‘w’.</p> <p style="text-align: center;">OR</p> <p>Write a function, UpperCount() in Python that counts and displays total number of uppercase characters used in the text file named “Clips.txt”.</p>	3
30	<p>A list contains following record of a student as list elements: [StudentName, MobileNumber, Class, Section]</p> <p>Write the following user defined functions to perform given operations on the stack named ‘xiia’:</p> <p>(i) pushElement() - To Push an object containing name and mobile number of students who belong to class xii and section ‘a’ to the stack</p> <p>(ii) popElement() - To Pop the objects from the stack and display them. Also, display “Stack Empty” when there are no elements in the stack.</p> <p>For example: If the lists of students details are: ["Rajveer", "999999999999", "XI", "B"] ["Swatantra", "888888888888", "XII", "A"] ["Sajal", "777777777777", "VIII", "A"] ["Yash", "1010101010", "XII", "A"]</p> <p>The stack “xiia” should contain ["Swatantra", "888888888888"] ["Yash", "1010101010"]</p> <p>The output should be: ["Yash", "1010101010"] ["Swatantra", "888888888888"]</p> <p>Stack Empty</p>	3
31	<p>Predict the output of the Python code given below:</p> <pre>s="Welcome2kv" n = len(s) m="" for i in range(0, n): if (s[i] >= 'a' and s[i] <= 'm'): m = m +s[i].upper() elif (s[i] >= 'n' and s[i] <= 'z'): m = m +s[i-1] elif (s[i].isupper()): m = m + s[i].lower()</pre>	3

```

else:
    m = m +'#'
print(m)

```

OR

Predict the output of the following Python code:

```

wildlife_sanctuary = ["Kaziranga", "Ranthambhore", "Jim Corbett", "Sundarbans", "Periyar",
"Gir", "Bandipur"]
output = [ ]
for sanctuary in wildlife_sanctuary:
    if sanctuary[-1] in 'aeiou':
        output.append(sanctuary[0].upper())
print(output)

```

SECTION D (4 X 4 = 16 Marks)

32 Consider the table SALES as given below:

4

Sales id	Customer name	Product	Quantity sold	price
S001	John Doe	Laptop	5	50000
S002	Jane Smith	Smartphone	10	30000
S003	Michael Lee	Tablet	3	15000
S004	Sarah Brown	Headphone	7	2000
S005	Emily Davis	Smartwatch	8	8000
S006	David	Smartwatch	3	16000
S007	Mark	Tablet	5	34000

A. Write the following queries:

- I. To display the total quantity sold for each product whose total quantity sold exceeds 10.
- II. To display the records of SALES table sorted by Product name in descending order.
- III. To display the distinct Product names from the SALES table.
- IV. To display the records of customers whose names end with the letter 'e'.

OR

B. Predict the output of the following:

- I. SELECT * FROM Sales where product='Tablet';
- II. SELECT sales_id, customer_name FROM Sales WHERE product LIKE 'S%';
- III. SELECT COUNT(*) FROM Sales WHERE product in ('Laptop', 'Tablet');
- IV. SELECT AVG(price) FROM Sales where product='Tablet';

33 Rohan is making a software on “Countries & their Capitals” in which various records are to be stored/retrieved in CAPITAL.CSV data file. It consists some records (Country , Capital). Help him to define and call the following user defined functions with appropriate values:

4

(i) AddNewRec(Country,Capital) – To accept and add the records to a CSV file “CAPITAL.CSV”. Each record consists of a list with elements as Country and Capital to store country name and capital name respectively.

(ii) ShowRec() – To display all the records present in the CSV file named ‘CAPITAL.CSV’

34 Consider the following tables BOOKS and ISSUED in a database named “LIBRARY”. Write SQL commands for the statements (i) to (iv).

1*4=
4

Table: BOOKS

BID	BNAME	AUNAME	PRICE	TYPE	QTY
COMP11	LET US C	YASHWANT	350	COMPUTER	15
GEOG33	INDIA MAP	RANJEET P	150	GEOGRAPHY	20
HIST66	HISTORY	R BALA	210	HISTORY	25

COMP12	MY FIRST C	VINOD DUA	330	COMPUTER	18
LITR88	MY DREAMS	ARVIND AD	470	NOBEL	24

Table: ISSUED

BID	QTY_ISSUED
HIST66	10
COMP11	5
LITR88	15

- (i) Display book name and author name and price of computer type books.
- (ii) To increase the price of all history books by Rs 50.
- (iii) Show the details of all books in ascending order of their qty issued.
- (iv) To display book id, book name and quantity issued for all books which have been issued.

OR

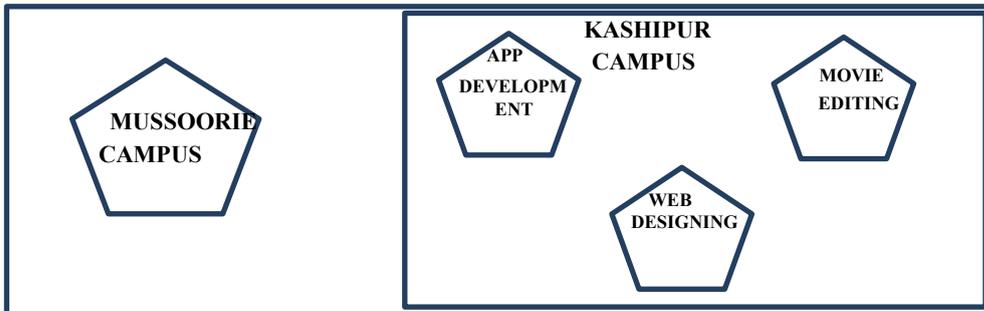
To display the Cartesian Product of the two tables.

35	<p>Rajesh wants to write a program in Python to delete a record of book from the table named Book having book_id as primary key in MYSQL database, LIBRARY. Note the following to establish connectivity between Python and MySQL:</p> <ul style="list-style-type: none"> a. Username - root b. Password - admin c. Host – localhost <p>The value of book_id has to be accepted from the user. Help him to write the program in Python.</p>	4
----	--	---

SECTION E (2 X 5 = 10 Marks)

36	<p>Mr. Ramesh, a manager at a software company, needs to maintain records of employees. Each record should include: Employee_ID, Employee_Name, Department and Salary. Write the Python functions to:</p> <ul style="list-style-type: none"> I. Input employee data and append it to a binary file. II. Update the salary of employees in the "IT" department to 200000. 	2+3 = 5
----	--	---------

37	<p>MakeInIndia Corporation, an Uttarakhand based IT training company, is planning to set up training centres in various cities in next 2 years. Their first campus is coming up in Kashipur district. At Kashipur campus, they are planning to have 3 different blocks for App development, Web designing and Movie editing. Each block has number of computers, which are required to be connected in a network for communication, data and resource sharing. As a network consultant of this company, you have to suggest the best network related solutions for them for issues/problems raised in question nos. (i) to (v), keeping in mind the distances between various blocks/locations and other given parameters.</p>	1*5=5
----	--	-------



Distance between various blocks/locations:

Block	Distance
App development to Web designing	28 m
App development to Movie editing	55 m
Web designing to Movie editing	32 m
Kashipur Campus to Mussoorie Campus	232 km

Number of computers

Block	Number of Computers
App development	35
Web designing	50
Movie editing	80

- (i) Suggest the most appropriate block/location to house the SERVER in the Kashipur campus (out of the 3 blocks) to get the best and effective connectivity. Justify your answer.
- (ii) Suggest a device/software to be installed in the Kashipur Campus to take care of data security.
- (iii) Suggest the best wired medium and draw the cable layout (Block to Block) to economically connect various blocks within the Kashipur Campus.
- (iv) Suggest the placement of the following devices with appropriate reasons:
 - a. Switch / Hub
 - b. Repeater
- (v) Suggest a protocol that shall be needed to share program and database files between Kashipur Campus and Mussoorie Campus.

OR

What is the use of VoIP?

Pre Board Exam (2025-26)

Class- XII

Time: 3 Hours

Subject- Information Practices (065)

MM- 70

General Instructions -

- All questions are compulsory.
- The examination paper contains five sections, from Section A to Section E.
- Section A consists of 21 questions (1 to 21). Each question carries 1 Mark.
- Section B consists of 7 questions (22 to 28). Each question carries 2 Marks.
- Section C consists of 4 questions (29 to 32). Each question carries 3 Marks.
- Section D consists of 2 questions (33 to 34). Each question carries 4 Marks.
- Section E consists of 3 questions (35 to 37). Each question carries 5 Marks.
- There is no overall choice. However, internal choices have been provided in some questions. Attempt only one of the choices in such questions.
- All programming questions are to be answered using Python Language only.

Q.No	Section A (21x1=21 Marks)	Marks
1.	State True or False: "The shape attribute of a DataFrame returns the number of rows and columns as a tuple."	1
2.	What will be the result of the following SQL query? SELECT SUBSTR('PANDAS', 2, 3); (A) PAN (B) AND (C) NDA (D) DAS	1
3.	Sneha downloaded a movie from a website and shared it online without the permission of the creators. This act falls under: (A) Hacking (B) Violation of Intellectual Property Rights (C) Cyber Stalking (D) Phishing	1
4.	Which of the following statements is used to read a CSV file named "student.csv" into a Pandas DataFrame? (A) pd.read() (B) pd.read_csv("student.csv") (C) pd.readfile("student.csv") (D) pd.read_data("student.csv")	1
5.	Which of the following devices is used to connect dissimilar networks that use different protocols? (A) Hub (B) Router (C) Gateway (D) Switch	1
6.	What will be the result of the SQL function MOD(20, 7)? (A) 2 (B) 13 (C) 7 (D) 6	1
7.	Rahul has designed a new company logo for his startup and wants to legally protect it from being copied by others. Which type of Intellectual Property Right will help him? (A) Trademark (B) Copyright (C) Patent (D) Trade Secret	1
8.	The default axis used by the sum() function in a Pandas DataFrame is ____ (A) axis = 0 (B) axis = 1 (C) axis = None (D) axis = 'index'	1
9.	If a relation has 2 candidate keys, then the number of alternate keys will be ____ (A) 0 (B) 1 (C) 2 (D) 3	1
10.	The main drawback of VoIP is ____ (A) Limited portability (B) Dependency on internet speed (C) Lack of audio features (D) High installation cost	1
11.	Which SQL function is used to return the highest value from a numeric column? (A) MAX() (B) TOP() (C) UPPER() (D) HIGH()	1
12.	When two Pandas Series are concatenated using pd.concat(), the result is: (A) Single Series (B) DataFrame (C) Error (D) None	1
13.	In India, violation of cyber laws is punishable under: (A) Information Technology Act, 2000 (B) Digital Security Bill, 2015 (C) Copyright Act, 1957 (D) None of these	1
14.	Which SQL clause is used to group rows that have the same values in specified columns? (A) GROUP BY (B) ORDER BY (C) SORT BY (D) CLASSIFY BY	1

15.	Which of the following commands will select only the “Name” column from a DataFrame df? (A) df[Name] (B) df['Name'] (C) df(Name) (D) df.select('Name')	1
16.	In which network topology is a single cable backbone used, to which all computers are connected? (A) Bus (B) Star (C) Tree (D) Ring	1
17.	What will be the output of the SQL query UPPER('informatics')? (A) Informatics (B) INFORMATICS (C) informatics (D) Error	1
18.	Which of the following commands creates a Pandas Series of zeros of length 5? (A) pd.Series(zeros=5) (B) pd.Series([0]*5) (C) pd.Series(0,5) (D) pd.Series.zeros(5)	1
19.	Which of the following is NOT a string function in SQL? (A) CONCAT() (B) SUBSTR() (C) ROUND() (D) INSTR()	1
	Q-20 and Q-21 are Assertion (A) and Reason (R) Type questions. Choose the correct option as: (A) Both A and R are True, and R correctly explains A. (B) Both A and R are True, but R does not correctly explain A. (C) A is True, but R is False. (D) A is False, but R is True.	
20.	Assertion (A): A primary key uniquely identifies each record in a table. Reason (R): Primary key allows NULL values in a table.	1
21.	Assertion (A): The sort_values() function in Pandas is used to sort data. Reason (R): By default, it sorts rows in descending order.	1
	Section B (7x2=14 Marks)	
22.	Define a Series in Pandas. Mention one difference between a Series and a DataFrame. OR Define indexing in Pandas. Mention one difference between label-based indexing and integer-based indexing.	2
23.	What is phishing? Mention one way to protect yourself from phishing attacks	2
24.	Priya wants to create the following Series using Pandas: Apple 120 Banana 60 Orange 80 Fill in the blanks: fruit_data is dictionary import _____ as pd fruit_data = _____ s = pd._____(fruit_data) print(s)	2
25.	Explain the concept of Cloud Storage. Mention one of its benefits. OR What is Open Source Software? Give one example.	2
26.	Write SQL queries for the following: I. Display the square root of 81. II. Display the current system date.	2
27.	Define e-Governance. Mention one of its advantages.	2
28.	Write the output of the following: import pandas as pd data = {'City':['Delhi','Mumbai','Kolkata'], 'Code':[11,22,33]} df = pd.DataFrame(data) df['State'] = ['Delhi','Maharashtra','West Bengal'] print(df) OR import pandas as pd students = pd.Series(['Ravi','Meena','Arjun']) grades = pd.Series(['A','B','A']) data = {'Name': students, 'Grade': grades}	2

	<pre>df = pd.DataFrame(data) df['Marks'] = [85, 72, 90] print(df)</pre>																									
Section C (4x3=12 Marks)																										
29.	<p>Ravi uploaded a project report online, and someone copied it without his permission.</p> <p>I. Identify the type of Intellectual Property violated.</p> <p>II. Explain the importance of Copyright in protecting creators.</p> <p>III. Differentiate between Copyright and Patent.</p>	3																								
30.	<p>Write a Python program to create the following DataFrame:</p> <table style="margin-left: 40px;"> <thead> <tr> <th>Item</th> <th>Price</th> </tr> </thead> <tbody> <tr> <td>Pen</td> <td>10</td> </tr> <tr> <td>Pencil</td> <td>5</td> </tr> <tr> <td>Notebook</td> <td>50</td> </tr> </tbody> </table> <p style="text-align: center;">OR</p> <p>Write a Python program to create a Pandas Series from a NumPy array [100,200,300] with indices 'x','y','z'.</p>	Item	Price	Pen	10	Pencil	5	Notebook	50	3																
Item	Price																									
Pen	10																									
Pencil	5																									
Notebook	50																									
31.	<p>Write SQL commands:</p> <p>I. Create a table BOOK with fields: BookID (Primary Key, Integer), Title (Varchar(30)), Price (Float), Publisher (Varchar(20)).</p> <p>II. Insert the record: (201, 'Python Basics', 450.50, 'Pearson').</p>	3																								
32.	<p>Consider the following tables:</p> <p style="text-align: center;">Table: CUSTOMER</p> <table style="margin-left: 40px;"> <thead> <tr> <th>CID</th> <th>Name</th> <th>City</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Raj</td> <td>Delhi</td> </tr> <tr> <td>2</td> <td>Meena</td> <td>Mumbai</td> </tr> <tr> <td>3</td> <td>Aman</td> <td>Delhi</td> </tr> </tbody> </table> <p style="text-align: center;">Table: ORDERS</p> <table style="margin-left: 40px;"> <thead> <tr> <th>OID</th> <th>CID</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>101</td> <td>1</td> <td>5000</td> </tr> <tr> <td>102</td> <td>2</td> <td>3000</td> </tr> <tr> <td>103</td> <td>1</td> <td>2500</td> </tr> </tbody> </table> <p>Write SQL queries:</p> <p>I. Display names of customers who are from Delhi.</p> <p>II. Display the total amount spent by each customer.</p> <p>III. Display names of customers along with their order amount.</p>	CID	Name	City	1	Raj	Delhi	2	Meena	Mumbai	3	Aman	Delhi	OID	CID	Amount	101	1	5000	102	2	3000	103	1	2500	3
CID	Name	City																								
1	Raj	Delhi																								
2	Meena	Mumbai																								
3	Aman	Delhi																								
OID	CID	Amount																								
101	1	5000																								
102	2	3000																								
103	1	2500																								
Section D (2x4=8 Marks)																										
33.	<p>Neha wants to plot a bar graph showing number of students in different classes:</p> <table style="margin-left: 40px;"> <thead> <tr> <th>Class</th> <th>Students</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>45</td> </tr> <tr> <td>XI</td> <td>52</td> </tr> <tr> <td>XII</td> <td>48</td> </tr> </tbody> </table> <p>Complete the Python code with blanks:</p> <pre>import matplotlib._____ as plt classes = ['X','XI','XII'] strength = [45,52,48] plt._____(classes, strength) plt.xlabel('Class') plt.ylabel('Number of Students') plt.title('Class Strength') plt.show()</pre>	Class	Students	X	45	XI	52	XII	48	4																
Class	Students																									
X	45																									
XI	52																									
XII	48																									

34.	<p>Consider the following table PRODUCT:</p> <table border="1"> <thead> <tr> <th>PID</th> <th>PName</th> <th>Price</th> <th>MDate</th> </tr> </thead> <tbody> <tr> <td>101</td> <td>Laptop</td> <td>50000</td> <td>2024-05-20</td> </tr> <tr> <td>102</td> <td>Mouse</td> <td>500</td> <td>2024-02-15</td> </tr> <tr> <td>103</td> <td>Printer</td> <td>8000</td> <td>2024-07-10</td> </tr> <tr> <td>104</td> <td>Tablet</td> <td>15000</td> <td>2024-06-01</td> </tr> </tbody> </table> <p>Write SQL queries:</p> <p>I. Display the product names in uppercase. II. Display the month from MDate of each product. III. Show the average price of all products. IV. Count how many products have a price greater than 10000.</p> <p style="text-align: center;">OR</p> <p>Anjali, who works as a database designer, has created a table STUDENT_INFO as shown below:</p> <p>Table: STUDENT_INFO</p> <table border="1"> <thead> <tr> <th>StudentID</th> <th>Name</th> <th>City</th> <th>Marks</th> <th>Admission_Date</th> </tr> </thead> <tbody> <tr> <td>201</td> <td>Meera Roy</td> <td>Delhi</td> <td>82</td> <td>2021-05-10</td> </tr> <tr> <td>202</td> <td>Karan Singh</td> <td>Mumbai</td> <td>91</td> <td>2020-07-22</td> </tr> <tr> <td>203</td> <td>Tanya Jain</td> <td>Bangalore</td> <td>87</td> <td>2022-01-15</td> </tr> <tr> <td>204</td> <td>Rohan Das</td> <td>Delhi</td> <td>78</td> <td>2021-03-18</td> </tr> <tr> <td>205</td> <td>Aryan Patel</td> <td>Mumbai</td> <td>95</td> <td>2020-09-05</td> </tr> </tbody> </table> <hr/> <p>SQL Queries:</p> <p>I. Show the Name and City of the students, both in uppercase, sorted alphabetically by Name. II. Display the StudentID along with the name of the month in which the student was admitted. III. Calculate and display the average marks obtained by the students. IV. Show the names of the cities and the number of students residing in each city.</p>	PID	PName	Price	MDate	101	Laptop	50000	2024-05-20	102	Mouse	500	2024-02-15	103	Printer	8000	2024-07-10	104	Tablet	15000	2024-06-01	StudentID	Name	City	Marks	Admission_Date	201	Meera Roy	Delhi	82	2021-05-10	202	Karan Singh	Mumbai	91	2020-07-22	203	Tanya Jain	Bangalore	87	2022-01-15	204	Rohan Das	Delhi	78	2021-03-18	205	Aryan Patel	Mumbai	95	2020-09-05	4
PID	PName	Price	MDate																																																	
101	Laptop	50000	2024-05-20																																																	
102	Mouse	500	2024-02-15																																																	
103	Printer	8000	2024-07-10																																																	
104	Tablet	15000	2024-06-01																																																	
StudentID	Name	City	Marks	Admission_Date																																																
201	Meera Roy	Delhi	82	2021-05-10																																																
202	Karan Singh	Mumbai	91	2020-07-22																																																
203	Tanya Jain	Bangalore	87	2022-01-15																																																
204	Rohan Das	Delhi	78	2021-03-18																																																
205	Aryan Patel	Mumbai	95	2020-09-05																																																
SECTION E (3x5=15 Marks)																																																				
35.	<p>XYZ Ltd. has offices in Chennai and Hyderabad. The Chennai office has 3 departments: HR, IT, and Accounts. Distances are:</p> <ul style="list-style-type: none"> • HR–IT: 40 m • HR–Accounts: 70 m • IT–Accounts: 50 m • Chennai to Hyderabad: 600 km <p>Computers: HR: 80, IT: 60, Accounts: 40, Hyderabad: 50</p> <p>Answer the following:</p> <p>I. Suggest the best location of server in Chennai office with reason. II. Suggest the layout of cables for Chennai office. III. Which device will you suggest to connect all computers within a department? IV. Which network (LAN, MAN, WAN) will be used to connect Chennai and Hyderabad? V. Which device will be needed if signal weakens over long distances?</p>	5																																																		
36.	<p>Consider the following DataFrame df:</p> <table border="1"> <thead> <tr> <th>EmpID</th> <th>Name</th> <th>Salary</th> <th>Dept</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Ravi</td> <td>60000</td> <td>IT</td> </tr> <tr> <td>2</td> <td>Meena</td> <td>55000</td> <td>HR</td> </tr> <tr> <td>3</td> <td>Aarav</td> <td>70000</td> <td>Finance</td> </tr> </tbody> </table>	EmpID	Name	Salary	Dept	1	Ravi	60000	IT	2	Meena	55000	HR	3	Aarav	70000	Finance	5																																		
EmpID	Name	Salary	Dept																																																	
1	Ravi	60000	IT																																																	
2	Meena	55000	HR																																																	
3	Aarav	70000	Finance																																																	

	<p>4 Nisha 50000 IT</p> <p>Write Python statements to:</p> <p>I. Display first two rows.</p> <p>II. Add a new column "Bonus" with values [5000,4000,6000,3000].</p> <p>III. Increase Salary of employees in IT department by 10%.</p> <p>IV. Delete the column "Dept".</p> <p>V. Display Name and Salary of employees with Salary > 55000.</p>	
37.	<p>Write SQL queries:</p> <p>I. Display the last 3 characters of column Name from table STUDENT.</p> <p>II. Display the current time from the system.</p> <p>III. Find the remainder when 55 is divided by 7.</p> <p>IV. Display the names of employees whose salary is between 40000 and 60000.</p> <p>V. Display the number of unique cities from table CUSTOMER.</p> <p style="text-align: center;">OR</p> <p>I. Display the year from the Hire_Date column of the EMPLOYEES table.</p> <p>II. Display the current date and time from the system.</p> <p>III. Find the average salary of employees from the EMPLOYEES table.</p> <p>IV. Display the names of orders from the ORDERS table where the Order_Date is in the year 2022.</p> <p>V. Display the total number of distinct cities from the CUSTOMERS table.</p>	5

Time allowed: 3 Hrs.

Maximum Marks: 80

General Instructions

Read the following instructions very carefully and follow them:

- i. This question paper has 13 questions. All questions are compulsory.
- ii. This question paper contains three sections:
 - Section A: Reading Skills
 - Section B: Creative Writing Skills
 - Section C: Literature
- iii. Attempt all questions based on specific instructions for each part. Write the correct question number and part thereof in your answer sheet.
- iv. Separate instructions are given with each question/part, wherever necessary.
- v. Adhere to the prescribed word limit while answering the questions.

SECTION A READING SKILLS

(22 marks)

Q1. Read the following passage carefully and answer the questions that follow:

12 Marks

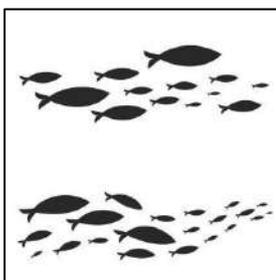
- 1) What were once upon a time seen in millions throughout the country, are today seen only in certain pockets of India? House sparrows. Why so? Conclusively, there have been no studies to identify the exact cause behind the sudden decrease in their numbers, but studies conducted in Jharkhand, India have pegged the decrease in sparrow count to be an alarming 80%. And lest you may assume, this is not limited to India alone!
- 2) There are a variety of reasons behind the declining sparrow count; with some pointing fingers at the architecture of modern houses which leaves little space for nesting sites. Add to it the decrease in shrub vegetation areas as well and the result is drastic loss in habitat. Excessive use of pesticides in agriculture is another cause, as it causes a decrease in reproductive efficiency of the sparrows by infecting their egg sheaths and its diet, since the chief diet of the sparrows is seeds, cereals and insects which in turn are direct victims of pesticide usage.
- 3) Sparrows are known to be sedentary birds that usually do not prefer undertaking long flights. However, with the advent of mobile telephony and the corresponding erection of mobile towers any and everywhere has made the sparrows an unwitting prey to technology. Mobile towers are known to emit radiation in the frequency of 900 to 1800 MHz which not only harms the thin chick skull and sparrow eggs, but also confuses and disorients the sparrow's navigational skills. Sparrows are rarely, or rather never found in areas having mobile towers.
- 4) The Nature Forever Society (NFS) was founded by an Indian conservationist Mohammed Dilawar. He started his work helping the house sparrows in Nasik. Emphasizing the crying need to conserve house sparrows, Dilawar said, "The indifference caused by the lack of emotional connect has pushed these birds to the edge of extinction."
- 5) The NFS started an international initiative to celebrate World Sparrow Day. This was first celebrated on 20 March 2010. After that, every year this day was celebrated all over the world to raise awareness about house sparrows and other common birds affected by the environment. In 2012, the sparrow was adopted as the state bird of Delhi.

1.1) Based on the passage above, match column A with column B. there is one extra statement in column B. (1)

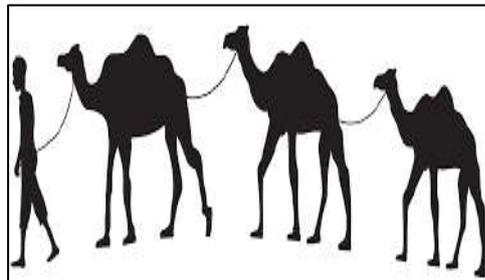
Column A	Column B
Paragraph nos.	Central idea
1	i) Predatory tech
2	ii) A resourceful enterprise
3	iii) Recognizing the need
4	iv) A cause for concern
5	v) Purposeful Technocrats
	vi) The grounds for the problem

- a) 1.iv, 2.vi, 3.i, 4.v, 5.ii
 b) 1.iii), 2.ii, 3.iv), 4.v, 5.i
 c) 1.iii, 2.ii, 3.vi, 4.iv, 5.i
 d) 1.iv, 2.vi, 3.i, 4.iii, 5.ii

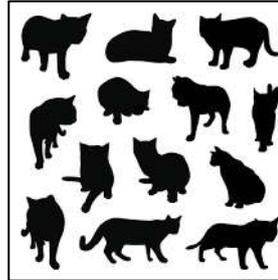
1.2) Match the following collective nouns with the animals and then choose the correct option. (1)



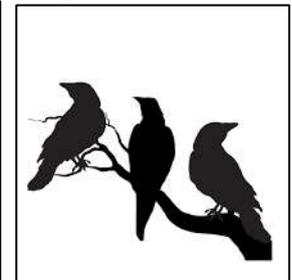
1



2



3



4

- i) murder ii) clowder iii) caravan iv) school

- a) 1.i, 2.ii, 3.iii, 4.iv
 b) 1.i, 2.ii, 3.iv, 4.iii
 c) 1.iv, 2.ii, 3.i, 4.iii
 d) 1.iv, 2.iii, 3.ii, 4.i

1.3 Choose the option that completes the given paragraph by correctly using five of the seven phrases from the text: - (2)

- i) crying need ii) here today, gone tomorrow iii) pegged the decrease iv) an unwitting prey
 v) the advent of vi) certain pockets vii) lack of emotional connect

The small artisans and crafts- persons of India have been _____ to industrialization. There are _____ in most regional communities that have, for generations, relied solely on weaving, handicrafts, etc. as a primary source of income. So, it is safe to say that there is a _____ to now support these artisans especially, in the face of a ready availability of machine- made products, imported items, and a general _____ with our own culture. If things continue this way, the future truly looks bleak for our local artisans – they could well be _____

- a) vi, vii, ii, i, v b) iv, vi, i, vii, ii c) iii, vii, i, vi, ii d) i, vi, ii, vii, iv

1.4. Based on your reading of the passage, complete this sparrow's plea for survival.

(2)

Help please humans!

As you know, we don't like travelling long distances, but we have to because there's been a loss of habitat due to a decrease in a) _____, and loss of b) _____. Moreover, c) _____ has made it difficult for us to find food. We request you to make d) _____ for us to stay safe and

Record your answers a) to d) against the correct question no. on your sheet.

a) _____
b) _____
c) _____
d) _____

1.5. The text states that The World Sparrow Day is celebrated all over the world

i) because _____ ii) in order to _____

(1)

1.6. The following is today's Delhiite's response to the fact that the sparrow was adopted as the state bird of Delhi as far back as 2012.

Rearrange the following words to make sense of the response.

(1)

DELHI'S STATE BIRD, /A RARE SPECIES/THAT DESPITE/ IS TODAY, / BEING/ IT IS/ IN THE/ THE HOUSE SPARROW/ IRONICAL, / CAPITAL

1.7. Complete the following statement by choosing the correct option.

(1)

Mohammad Dilawar is a conservationist. Such a person is one who-

- a) manages natural habitats including parks, forests and range lands.
- b) favours traditional views and values.
- c) is driven by a set of over-arching beliefs and ideologies.
- d) advocates for the protection and preservation of the environment and wildlife.

1.8. Choose the option that is NOT true according to the text.

(1)

- a) Sparrows rarely undertake long flights.
- b) The house sparrow is the state bird of Delhi.
- c) Sparrows are often found perching on mobile towers.
- d) Sparrows are now visible only in some pockets in the country.

1.9. List the possible reasons for the decline in the sparrow population.

(1)

a) _____ b) _____

1.10. Pesticides infect the egg sheaths of the sparrows. Based on your understanding of what a 'sheath' is, choose an option which lists the illustration/ image that uses a sheath. (1)



i

ii

iii

iv

a) Image i)

b) Image ii)

c) Image iii)

d) Image iv)

Q2. Read the following passage carefully and answer the questions that follow:

10 marks

The idea that coffee is bad for the heart pops up periodically. It was found that regularly drinking very strong coffee could sharply increase cholesterol levels. Researchers find that isolated fat like chemicals, cafestol and kahweol are responsible for the rise.

It turned out that the European brewing method- boiling water sits on the coffee grounds for several minutes before straining- produces high concentrations of cafestol and kahweol. By contrast, the filter and percolation methods remove all but a trace of these chemicals. Moreover, the studies involved large amounts of coffee, 5-6 cups a day. Research also shows that regular moderate coffee drinking does not dangerously raise blood pressure.

“For heart disease, I think, the issue is closed.” -says Meir Stampfer an epidemiologist at Harvard who has studied many aspects of coffee and health. —Coffee drinking at reasonable levels is unrelated to heart risk.” Evidence suggests that coffee may help fend off Parkinson’s disease.

Scientists at Massachusetts general hospital, USA, found indirect evidence that caffeine may actually combat Parkinson’s. The caffeine seemed to protect mice brain cells from depletion of the nerve chemical dopamine- the problem underlying Parkinson’s in humans. However, these are preliminary findings, human studies have not consistently supported caffeine’s protective role.

The studies on coffee and cancer are also reassuring. You may remember a brief coffee scare in the early 1980’s when a single study linked coffee with pancreatic cancer. Many studies since then have shown that the association is either extremely weak or non-existent. If there is a connection between coffee and bladder cancer, it possibly just applies to coffee junkies. Studies show that coffee seems to have no adverse influence on the risk of colon cancer.

Caffeine is such a powerful stimulant that the international Olympic committee and the National Collegiate Athletic Association set limits on how much can remain in the blood during competition. In addition to boosting physical endurance, caffeine increases alertness and improves mood. The buzz comes at a price though.

People who drink more than they are used to may become restless and unable to sleep. The question now arises; how much to drink? For most people, however, there is virtually no risk in consuming up to 3 normal cups a day. For healthy adults, the FDA has cited 400 mg a day- that’s about 4 or 5 cups of coffee- as an amount not generally associated with dangerous negative effects. The FDA has not set consumption of caffeine by children and adolescents.

The amount of caffeine included in some common food and beverages are:

- One 8-ounce cup of coffee; 95-200mg
- One 12-ounce can of cola; 35-45mg
- One 8-ounce energy drink; 70-150mg
- One 8-ounce cup of tea; 14-60mg

Based on your understanding of the passage answer the questions by choosing the correct option.

2.1 Select the correct inference with reference to the following: **(1)**

“For heart disease, I think, the issue is closed,” says Meir Stampfer

- a) Considerable research had been done to set a relationship between coffee and heart issues
- b) No link was found between coffee and heart issues
- c) Heart issues are not the central concern for researches related to coffee
- d) Heart diseases and coffee seems to have no relation to each other

2.2. The international Olympic Committee and The National Collegiate Athletic Association stand on the assumption that **(1)**

- a) Drinking coffee is absolutely detrimental
- b) Drinking coffee may be consumed to a monitored extent
- c) Drinking coffee is favourable to the players in every way possible
- d) Showering on rival teams, cups of coffee so that they become restless and cannot sleep

2.3 Based on the data given in the box above choose the option that lists the statements that are true with respect to the amount of caffeine in food. (1)

1. An 8-ounce cup of tea has more caffeine than an 8-ounce cup of coffee
 2. An energy drink like red bull has about 70-150 mg of caffeine
 3. A 12-ounce can of cola has less caffeine than an 8-ounce cup of coffee
 4. A latte at Starbucks has about 14-60 mg of caffeine
- a) 2 & 3 b) 1 & 3 c) 2 & 4 d) 1 & 4

2.4 Select the appropriate counter argument to the given argument (1)
Argument: Coffee is related to cancer

- a) No research is able to establish a link between coffee and cancer
- b) Coffee does not produce any element that is related to cancer
- c) The scare talked off is baseless and there is no proof of such a relation
- d) Only coffee junkies are prone to cancer

2.5 Choose the option that lists the statements that are not true with respect to coffee intake in human beings (1)

- a) The premise that coffee helps fend off Parkinson ‘s disease is still a disputable issue
- b) Some studies indicate that coffee has an adverse influence on the risk of colon cancer
- c) People who drink much more coffee than they are used to may have difficulty in sleeping
- d) Drinking coffee at reasonable levels does not lead to heart diseases

2.6 Select the option that displays the correct cause-effect relationship. (1)

a)	Cause	Effect	b)	Cause	Effect
	Drinking coffee	Sleep		Drinking coffee	Pleasant behaviour

c)	Cause	Effect	d)	Cause	Effect
	Drinking coffee	Cognitive functioning		Drinking coffee	Anxiety

2.7 How can we combat Parkinson ‘s disease through coffee intake? (2)

2.8 How does the filter and percolation methods of brewing coffee help the intake of coffee? (2)

SECTION B
CREATIVE WRITING SKILLS (18 marks)

All the names and addresses used in the questions are fictitious. Resemblance, if any, is purely coincidental.

Q3. Attempt any one of the two, (A) or (B), in about 50 words 1x4=4

A. On the occasion of National Science and Technology Day, the school has decided to organise a Science Fair. Vikram, the secretary of the Science Society, wants to call a meeting of the office bearers of the Science society to discuss the arrangements for the fair. Write a notice on his behalf in not more than 50 words.

OR

B. The Residents of a Welfare Association, Vrindavan Complex, Mumbai is planning to organise Community Lunch for the people living in the nearby slum. As the president of the association, draft a notice in not more than 50 words informing the residents about the same and calling for contributions and volunteers for the programme.

Q4. Attempt any one of the two, (A) or (B), in about 50 words. 1x4=4

A. Amar Vidyalaya, Nagpur, Mumbai is organising a Cultural Evening to collect funds for the slum children. The education minister has consented to be the Chief Guest on the occasion. Draft a formal invitation to be sent to parents on the occasion. You are Poorav/Poorvi, the Secretary of the Cultural Club of the school.

OR

B. Mother Teresa Public School, Kolkata is organising an interschool debate on 26 January 2025 at 11 a.m. The famous journalist Shekhar Kapoor of The Indian Express has been invited to be the judge. Write a reply on his behalf accepting the invitation.

Q5. Attempt any one of the two, (A) or (B), in 120-150 words

1x5=5

A. Many people while travelling do not follow standard norms such as standing in queues, keeping one's surroundings clean, and maintaining a certain level of silence that shows respect for everyone's space. This leads others to have an unpleasant and unsafe experience. In 120-150 words, write a letter to the editor of a national daily describing the problem and examining the various unfavourable behaviours. Provide suggestions for how such behaviour can be improved. Use the following cues along with your own ideas to compose this letter. You are Arunima/Pankaj, a concerned Indian citizen.

Examples of unfavourable behaviours

-not maintaining proper queues-throwing rubbish on the floor-shoving or pushing -watching videos without earphones or talking loudly

Consequences

-causes chaos -physical injuries -dirty and unhygienic surroundings-disrupting the peace of the place

OR

B. You are Deepika/Rajesh, a fresh graduate from Trichy Arts & Science College. You saw the given advertisement in the newspaper and wish to apply. Write a letter, along with your bio-data, expressing your interest in one of the advertised posts.

DECATHLON

Dehradun, Uttarakhand

Content Writer, Data Entry, Computer Operator, Back Office, Typist, Trainer

(Part time)

Candidates should be min. Class XII passed & must have good communication skill in English /Kumaoni/ Hindi.

Pay- ₹24,600 - ₹29,000 a month

Job type

Part-time/Fresher-- Shift and schedule---Day shift

Benefits *Flexible schedule * Pick & Drop facility * Overtime pay

Apply now with resume to Decathlon-HR Office, Dehradun Head Office.

Q6. Attempt any one of the two, (A) or (B), in 120-150 words

1x 5=5

A. On the threshold of being a world super power, India does have a large young workforce but unfortunately, not many in this force are employable for want of necessary skills. Write an article for a newspaper on the topic 'Skill Development is the need of the hour.' You are Anita/Arnav.

Suggested value points:

-mention briefly the status of the issue - Indian education fails to develop employ ability skills -describe how this deficit affects Indian economy -suggest what can be done to develop these skills among the young people who are going to be the mainstay of the workforce of the future

OR

B. You are Asmit/Asma, the Head boy/Head girl of Queens Public School, Delhi. Recently your school hosted the Regional level Kala Utsav 2025. Write a report of this event for your school newsletter using your own ideas as well as the cues given.

Cues for Writing the Report:

-Purpose or objective of the event (promoting culture, showcasing talent, fostering unity, etc.)

-Number of participating schools or students-Special guests, dignitaries, or judges (if any)

-List of cultural programs--Reaction from the audience-Chief guest's speech and key takeaways

**SECTION C
LITERATURE**

**(40 marks)
1X6=6**

Q7. Read the following extracts and solve ANY ONE of the given two, (A) or (B).

A. Those who prepare green wars,
wars with gas, wars with fire,
victory with no survivors,
would put on clean clothes
and walk about with their brothers in the shade,
doing nothing. (Keeping Quiet)

- (i) What are green wars? 1
- (ii) Pick the option that DOES NOT complete the given sentence suitably, as per the extract. 1
Green wars, wars with gas etc will _____.
- a) solve problems in the world.
b) destroy everything.
c) weaken a nation.
d) pollute the environment.
- (iii) What statement does Neruda make about wars? 1
- a) Wars are of varied kinds – internal, green wars, wars with gas, with fire etc.
b) Wars are wasteful and cause irrecoverable loss and damage to property and life.
c) Wars never yield any winners, and the loss is far greater than what can be measured.
d) Wars are unavoidable in the enduring struggle for human dignity and power.
- (iv) The phrase ‘putting on clean clothes’ refers to _____. 1
- (v) The poetic device used in the phrase “Victory with no survivors” is 1
- a) alliteration
b) irony
c) simile
d) metaphor
- (vi) State whether the given statement is TRUE or FALSE, with reference to the extract: 1
‘Walking about with brothers in the shade doing nothing’ emphasize the importance of peace and brotherhood.

OR

B. It is in the news that all these pitiful kin
Are to be bought out and mercifully gathered in
To live in villages, next to the theatre and the store,
Where they won't have to think for themselves anymore,
While greedy good-doers, beneficent beasts of prey,
Swarm over their lives enforcing benefits
That are calculated to soothe them out of their wits,
And by teaching them how to sleep they sleep all day,
Destroy their sleeping at night the ancient way. (The Roadside Stand)

- (i) What is the tone of the poet in the above lines? 1
1. aggressive
2. tolerant
3. sarcastic
4. resigned
5. sentimental

Choose the most appropriate option.

- a) Only (1)
- b) (2) and (3)
- c) (1), (4), and (5)
- d) Only (3)

(ii) Identify the phrase from the extract, that suggests the following: 1
No one bothers to take 'their' consent before pushing the promise of a better life, their way.

(iii) Mention the complaints made by the poet through this poem. 1

(iv) Fill the blank with an appropriate word, with reference to the extract. 1
'... *calculated to soothe them out of their wits*' implies that 'them' are being _____ .

(v) On the basis of the extract, choose the correct option with reference to (1) and (2) given below. 1
1. The city dwellers make promises for the betterment of the villagers.
2. The city dwellers have ulterior motives.
a) (1) is true but (2) is false.
b) (2) is true but (1) is false.
c) (2) is the reason for (1).
d) Both (1) and (2) cannot be inferred from the extract.

(vi) Complete the following analogy correctly. Do NOT repeat from the used example. 1
greedy good doers: alliteration: _____: Oxymoron

8. Read the following extracts and solve ANY ONE of the given two, (A) or (B). 4x1=4

A. Human civilizations have been around for a paltry 12,000 years barely a few seconds on the geological clock. In that short amount of time, we've managed to create quite a ruckus, etching our dominance over nature with our villages, towns, cities, mega cities. The rapid increase of human populations has left us battling with other species for limited resources, and the unmitigated burning of fossil fuels has now created a blanket of carbon dioxide around the world, which is slowly but surely increasing the average global temperature. (Journey to the end of the Earth)

(i) According to the view expressed by the author in the above extract, increase in global temperature is due to- 1

- a) mega cities
- b) human people
- c) burning of fossil fuels
- d) limited resources

(ii) Complete the following sentence with reference to the extract: 1

Humans are criticised by the author for _____

(iii) According to the author, the relation between human population and resources is _____. 1

(iv) 'In that short amount of time, we've managed to create a ruckus'. By 'ruckus', the author refers to 1

- a) movement
- b) misunderstanding
- c) breach
- d) commotion

OR

B. Judewin knew a few words of English; and she had overheard the paleface woman talk about cutting our long, heavy hair. Our mothers had taught us that only unskilled warriors who were captured had their hair shingled by the enemy. Among our people, short hair was worn by mourners, and shingled hair by cowards! We discussed our fate some moments, and when Judewin said, "We have to submit, because they are strong," I rebelled. "No, I will not submit! I will struggle first!" I answered. (Memories of Childhood)

(i) Name the title of this excerpt. 1

(ii) What view had the narrator 's mother had about shingled hair? 1

(iii) Who decided to fight the cutting of the hair? 1

- a) Judewein
- b) Zitkala Sa
- c) Bama
- d) Pale faced woman

- (iv) Why did the girl resist cutting of her hair? 1
a) This was undignified for her culture and traditions
b) She liked long hair
c) She felt oppressed
d) All the above

9. Read the following extracts and solve ANY ONE of the given two, (A) or (B). 1x6=6

A. It was only two or three feet deep at the shallow end; and while it was nine feet deep at the other, the drop was gradual. I got a pair of water wings and went to the pool. I hated to walk naked into it and show my skinny legs. But I subdued my pride and did it. (Deep Water)

- (i) The author subdued his pride and did it. This shows that he – 1
a) hated swimming
b) loved swimming
c) did not want to swim
d) was forced to swim

(ii) What are water wings? 1

- (iii) He got water wings before going to the pool. This shows that he – 1
a) was brave
b) was courageous
c) was rich
d) was scared

(iv) State True or False – 1
The writer could drown at the shallow end of the pool.

(v) Find a synonym of overpower. 1

(vi) Deep water is an excerpt from which book? 1

OR

B. The news of Gandhi's advent and of the nature of his mission spread quickly through Muzaffarpur and to Champaran. Sharecroppers from Champaran began arriving in large numbers on foot and by conveyance to see their champion. Muzaffarpur lawyers called on Gandhi to brief him. They frequently represented peasant groups in court; they told him about their cases and reported the size of their fee.

- (i) Of the four meanings of 'Champion', select the option that matches in meaning with its usage in the extract; 1
a) Vigorous advocator
b) Hero
c) Popular Leader
d) Number one title holder

(ii) State whether TRUE or FALSE- "The nature of Gandhi's mission as mentioned in the passage was to help the poor peasants." 1

(iii) What does 'their cases' refer to in the context? 1

(iv) Select the term that can be associated with the following phrases: 1

1) Spread quickly through Muzaffarpur	a) Gandhiji's popularity b) the extent of exploitation c) belief in Gandhi d) seriousness of the issue
---------------------------------------	---

(v) Select the option that lists the feelings and attitudes of the sharecroppers towards Gandhi? 1

- 1.Hope
 - 2.courage
 - 3.Accountability
 - 4.Leadership
 - 5.Fear
- a)1&2
b)2&4
c)3&5
d)1&4

(vi) Indigo is an excerpt from which book? 1

10. Answer any five of the following six questions in about 40-50 words. **5x2=10**

- I. What changes did the order from Berlin cause in the school? (The Last Lesson) 2
- II. What do we learn about the crofter's nature from the story, "The Rattrap"?' 2
- III. What is the kind of pain and ache that the poet feels? (My Mother at Sixty Six) 2
- IV. What is the example of national integration that the author refers to? (Poets and Pancakes) 2
- V. Match the opinion of the following celebrities correctly about the interview (one is extra): 2
(The Interview)

Celebrity	Opinion about Interview
(i) V.S. Naipaul	a) Our most vivid impressions of our contemporaries are formed through interviews
(ii) Rudyard Kipling	b) Thumbprints on his windpipe
(iii) HG Wells	c) People are wounded by interviews and lose a part of themselves
(iv) Saul Bellow	d) It is immoral, crime, an offence against a person, an assault, merits, punishment, cowardly and vile
	e) Ordeal

VI. How can 'mighty dead' be things of beauty? (A Thing of Beauty) 2

11. Answer any two of the following three questions in about 40 -50 words. **2x2=4**

- I. What is a first day cover? 2
- II. Why did the messenger come to Dr Sadao? What did Hana think about it? 2
- III. What qualities did the king demonstrate as a ruler during the years he spent hunting tigers? 2

12. Answer any one of the following two questions, in about 120-150 words.

1x5=5

I. 'Their mother sighed. Sophie watched her back stooped over the sink and wondered at the incongruity of the delicate bow which fastened her apron strings.' The prose selection, *Going Places* includes this telling comment about Sophie's mother. In *Aunt Jennifer's Tigers*, we are told that -'The massive weight of Uncle's wedding band sits heavily upon Aunt Jennifer's Hand.'

Imagine a conversation between Sophie's mother and Aunt Jennifer. Create this exchange with reference to the two extracts given above. You may begin the conversation like this

Sophie's mother: Your embroidery is so beautiful. Do you love tigers?

OR

II. Lost Spring and Indigo bring out how the common man is a victim of exploitation. Explain.

13. Answer any one of the following two questions, in about 120-150 words

1x5=5

I. 'The Enemy' is a powerful critique of blind nationalism and racial prejudice. Do you agree? Support your answer with textual evidence and critical interpretation. Reflect on the irony of Sadao's experiences in America and how these influence his perception of the enemy.

OR

II. Optimism in one's attitude helps deal with all the challenges in life. Prove the statement by referring to the character Mr. Lamb from the chapter 'On the Face of it'.

PRE-BOARD EXAMINATION (2025-26)

CLASS - XII

Time: 3 hours

SUBJECT : CHEMISTRY (043)

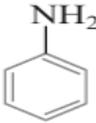
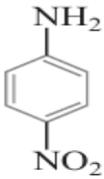
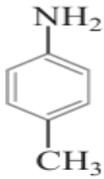
MM-70

GENERAL INSTRUCTIONS:

Read the following instructions carefully.

- (a) There are 33 questions in this question paper with internal choice.
- (b) SECTION A consists of 16 multiple-choice questions carrying 1 mark each.
- (c) SECTION B consists of 5 short answer questions carrying 2 marks each.
- (d) SECTION C consists of 7 short answer questions carrying 3 marks each.
- (e) SECTION D consists of 2 case-based questions carrying 4 marks each.
- (f) SECTION E consists of 3 long answer questions carrying 5 marks each.
- (g) All questions are compulsory.
- (h) Use of log tables and calculators is not allowed.

Q. NO.	QUESTION	MARKS
	SECTION A	
	Questions no.1 to 16 are Multiple Choice type Questions, Carrying 1 mark each.	
1.	In the reaction, $A \rightarrow B$ the rate of reaction increases two times on increasing the concentration of A four times, the order of reaction is (A) 2 (B) 0 (C) $\frac{1}{2}$ (D) 3	1
2.	Which substance is used to determine the hardness of water using a simple titration? (A) Mg(EDTA) (B) Fe(EDTA) (C) $\text{Na}_2(\text{EDTA})$ (D) Co(EDTA)	1
3.	Which of the following compounds will give brisk effervescence of CO_2 on treatment with NaHCO_3 ? (A) Phenol (B) Acetic acid (C) both (D) None of these	1
4.	The half-life of a first order reaction is 69.35 sec. The value of rate constant of the reaction is (A) 1.0 s^{-1} (B) 0.1 s^{-1} (C) 0.01 s^{-1} (D) 0.001 s^{-1}	1

5.	Which of the following can be used for the preparation of 1-chloropropane? (A) Propene and HCl in the presence of peroxide (B) Propene and HCl in the absence of peroxide (C) Propene and Cl ₂ followed by treatment with aqueous KOH (D) Propan-1-ol and SOCl ₂ /pyridine	1
6.	Actinoids exhibit greater number of oxidation states than lanthanoids. The main reason being (A) more energy difference between 5f and 6d than between 4f and 5f orbitals (B) 4f orbitals are more diffused than the 5f orbitals (C) lesser energy difference between 5f and 6d than between 4f and 5d orbitals (D) more reactive nature of the actinoids than the lanthanoids.	1
7.	Which of the following reactions will not result in the formation of carbon-carbon bond? (A) Friedel-Crafts acylation (B) Wurtz reaction (C) Cannizzaro reaction (D) Reimer-Tiemann reaction	1
8.	Which of the following alcohols is not polyhydric? (A) Propylene glycol (B) Ethylene glycol (C) Cyclohexanol (D) Benzene-1,2-diol	1
9.	Which of the following oxidation state is common for all lanthanoids? (A) +2 (B) +3 (C) +4 (D) +5	1
10	Which of the following reactions of glucose can be explained only by its cyclic structure? (A) Glucose forms pentaacetate. (B) Glucose reacts with hydroxylamine to form an oxime. (C) Pentaacetate of glucose does not react with hydroxylamine. (D) Glucose is oxidized by nitric acid to gluconic acid.	1
11.	The correct increasing order of basic strength for the following compounds is _____. <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>(I)</p> </div> <div style="text-align: center;">  <p>(II)</p> </div> <div style="text-align: center;">  <p>(III)</p> </div> </div> <p>(A) II < III < I (B) III < I < II (C) III < II < I (D) II < I < III</p>	1

12	<p>An organic compound 'A' on treatment with NH_3 gives 'B' which on heating gives 'C'. 'C' when treated with Br_2 in the presence of KOH produces ethylamine. Compound 'A' is</p> <p>(A) $\text{CH}_3\text{—CH}_2\text{—CH}_2\text{—COOH}$ (B) CH_3COOH (C) $\text{CH}_3\text{—CH}_2\text{—CH}_2\text{—CHO}$ (D) $\text{CH}_3\text{—CH}_2\text{—COOH}$</p>	1
	<p>For the Questions number 13 to 16, two statements are given—one labelled as Assertion (A) and the other labelled as Reason (R). Select the correct answer to these questions from the codes (A), (B), (C) and (D) as given below:</p> <p>(A) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of the Assertion (A). (B) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A). (C) Assertion (A) is true, but Reason (R) is false. (D) Assertion (A) is false, but Reason (R) is true.</p>	
13.	<p>Assertion (A): Current stops flowing when $E_{\text{cell}} = 0$. Reason (R): Equilibrium of the cell reaction is attained.</p>	1
14.	<p>Assertion (A): Order of the reaction can be zero or fractional. Reason (R): We cannot determine order from balanced chemical equation.</p>	1
15.	<p>Assertion(A): Linkage isomerism arises in coordination compounds containing ambidentate ligand. Reason (R): Ambidentate ligand has two different donor atoms.</p>	1
16.	<p>Assertion (A) : Sucrose is a non-reducing sugar. Reason (R) : In sucrose, the aldehydic group of glucose and ketonic group of fructose are not free.</p>	1
	<p style="text-align: center;">SECTION B</p> <p>This section contains 5 questions with internal choice in one question. The following questions are very short answer type and carry 2 marks each.</p>	
17.	<p>(a) Define azeotropes. (b) What type of azeotrope is formed by negative deviation from Raoult's law? Give an example.</p> <p style="text-align: center;">OR</p> <p>The images below show the evaporation of the solvent on account of the presence of non-volatile solutes. In each of the three cases, the solvent taken is of the same type. The solvent is volatile and its quantity is the same in all three cases.</p>	1+1=2

24.	<p>(a) Arrange the following compounds in increasing order of their property as indicated:</p> <p>(i) Acetaldehyde, Acetone, Di-tert-butyl ketone, Methyl tert-butyl ketone (Reactivity towards HCN)</p> <p>(ii) $\text{CH}_3\text{CH}_2\text{CH}(\text{Br})\text{COOH}$, $\text{CH}_3\text{CH}(\text{Br})\text{CH}_2\text{COOH}$, $(\text{CH}_3)_2\text{CHCOOH}$, $\text{CH}_3\text{CH}_2\text{CH}_2\text{COOH}$ (Acid strength)</p> <p>(b) Give a simple chemical test to distinguish between Propanal and Propanone.</p>	2+1=3
25.	<p>Primary alkyl halide $\text{C}_4\text{H}_9\text{Br}$ (A) reacted with alcoholic KOH to give compound (B). Compound (B) is reacted with HBr to give (C) which is an isomer of (A). When (A) is reacted with sodium metal, it gives compound (D), C_8H_{18} which is different from the compound formed when n-butyl bromide is reacted with sodium. Write the equations for all the reactions.</p>	1+1+1=3
26.	<p>(a) What type of linkage is present in nucleic acid.</p> <p>(b) Why must vitamin C be supplied regularly in diet?</p>	1+2=3
27.	<p>Give explanation for each of the following:</p> <p>(i) Cyclohexanone forms cyanohydrin in good yield but 2,2,6-trimethylcyclohexanone does not.</p> <p>(ii) There are two $-\text{NH}_2$ groups in semicarbazide, only one is involved in the formation of semicarbazone.</p> <p>(iii) Acetaldehyde, Acetone, Di-tert-butyl ketone, Methyl tert-butyl ketone (reactivity towards HCN).</p> <p style="text-align: center;">OR</p> <p>How do you convert the following?</p> <p>(i) Propanone to Propene</p> <p>(ii) Benzoic acid to Benzaldehyde</p> <p>(iii) Ethanol to 3-Hydroxybutanal</p>	1+1+1=3
28.	<p>i) What is lanthanoid contraction? What are the consequences of lanthanoid contraction?</p> <p>ii) Highest fluoride of Mn is MnF_4 whereas the highest oxide is Mn_2O_7. why?</p>	2+1=3

SECTION D		
<p>The following questions are case-based questions. Each question has an internal choice in 2 marks questions and carries 4 (1+1+2) marks each. Read the passage carefully and answer the questions that follow.</p>		
29.	<p>Temperature has a marked effect on the rate of reaction. For most of the reactions, the rate of reaction becomes nearly double for every 10 degrees rise in temperature. The effect of temperature is usually expressed in terms of temperature coefficient. The quantitative dependence of reaction rate on temperature was first explained by Swante Arrhenius. Arrhenius proposed a simple equation known as Arrhenius equation $k = Ae^{-E_a/RT}$ This equation provides a relationship between the rate constant (k) of a reaction and the temperature of the system. A is the Arrhenius factor or pre-exponential factor, E_a is the activation energy and R is the gas constant.</p> <p>According to Boltzmann and Maxwell, the distribution of kinetic energy may be described by plotting the fraction of molecules with a given kinetic energy. The Maxwell-Boltzmann Distribution is important in chemical reactions because it helps to explain the rate of reaction. The speed of particles affects the rate of collision between particles, which in turn affects the rate of reaction and also shows the distribution of energy amongst the particles of an ideal gas.</p> <p>Answer the following questions:</p> <p>(i) Define ‘activation energy’ of a reaction.</p> <p>(ii) What is the expression for the fraction of molecules having energy greater than activation energy?</p> <p style="text-align: center;">OR</p> <p>How does a catalyst affect the rate of a reaction? Explain with respect to the Arrhenius equation.</p> <p>(iii) Can a reaction have zero activation energy? Justify</p>	<p>1</p> <p>1</p> <p>2</p>
30.	<p>Pure aliphatic and alkyl amines can be prepared by Gabriel phthalimide reaction. In this reaction, phthalimide is treated with ethanolic KOH solution followed by heating with a suitable alkyl or aralkyl halide to give N-substituted phthalimides. These upon hydrolysis with dil HCl under pressure give primary amines.</p> <p>Primary amines can also be prepared from amides by treatment with Br_2 and KOH by a reaction known as Hoffmann bromamide degradation method. Like ammonia, amines behave as Lewis bases because of the presence of a lone pair of electrons. The basicity</p>	

	<p>of aliphatic amines in aqueous solution depends upon the +I effect of alkyl group as well as the extent of hydrogen bonding with water molecules and the steric effect of the alkyl group. However, aromatic amines are weaker bases than aliphatic amines.</p> <p>Primary amines with three or more carbon atoms are liquid and still higher ones are solid. Aniline and other aryl amines are usually colourless but get coloured on storage due to atmospheric oxidation.</p> <p>Answer the following questions:</p> <p>i) How can you distinguish between $\text{CH}_3\text{CH}_2\text{NH}_2$ and $(\text{CH}_3\text{CH}_2)_2\text{NH}$ by Hinsberg test?</p> <p>ii) Which one has more pK_b value; aliphatic amines or ammonia?</p> <p style="text-align: center;">OR</p> <p>Write structure and IUPAC names of the amide which gives propanamine by Hoffmann bromamide reaction.</p> <p>iii) (a) Gabriel phthalimide reaction cannot be used to prepare aniline. Why? (b) Why does aniline not give Friedel-Crafts reaction?</p>	<p>1</p> <p>1</p> <p>1+1= 2</p>
	SECTION E	
	The following questions are long answer types and carry 5 marks each. All questions have an internal choice.	
31	<p>a) Determine the osmotic pressure of a solution prepared by dissolving 25 mg of K_2SO_4 in 2 litre of water at 25°C, assuming that it is completely dissociated.</p> <p>b) blood cells are isotonic with 0.9% sodium chloride solution. What happening if we placed blood cells in a solution containing (i) 1.2% NaCl solution (ii) 0.4% NaCl solution.</p> <p style="text-align: center;">OR</p> <p>a) Define the following terms: (i) Anoxia (ii) Osmotic pressure (iii) Colligative properties</p> <p>b) Calculate the mass of NaCl (molar mass = 58.5 g mol^{-1}) to be dissolved in 37.2 g of water to lower the freezing point by 2°C, assuming that NaCl undergoes complete dissociation.</p>	<p>3+2 =5</p> <p>3+2=5</p>

KENDRIYA VIDYALAYA SANGTHAN DEHRADUN REGION
PRE-BOARD EXAMINATION 2025-26
SUBJECT- PHYSICS
CLASS –XII

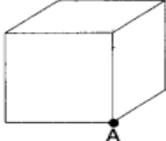
TIME: 3 HOUR

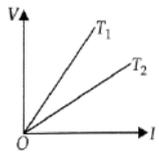
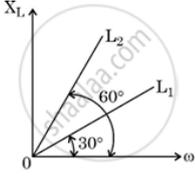
MAXIMUM MARKS: 70

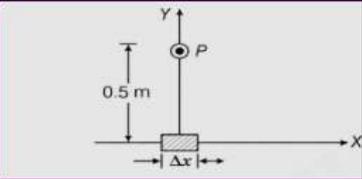
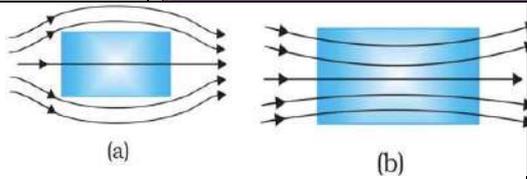
General Instructions

- (1) There are 33 questions in all. All questions are compulsory.
- (2) This question paper has five sections: Section A, Section B, Section C, Section D and Section E.
- (3) All the sections are compulsory.
- (4) **Section A** contains **sixteen questions, twelve MCQ and four assertion reasoning based of 1 mark each**, **Section B** contains **five questions of two marks each**, **Section C** contains seven questions of three marks each, **Section D** contains **two case study-based questions of four marks each** and **Section E** contains **three long answer questions of five marks each**.
- (5) There is no overall choice. However, an internal choice has been provided in two questions in Section B, one question in Section C and all three questions in Section E. You have to attempt only one of the choices in such questions.
- (6) Use of calculators is not allowed.
- (7) You may use the following values of physical constants where ever necessary
 - i. $c = 3 \times 10^8$ m/s
 - ii. $m_e = 9.1 \times 10^{-31}$ kg
 - iii. $m_p = 1.7 \times 10^{-27}$ kg
 - iv. $e = 1.6 \times 10^{-19}$ C
 - v. $\mu_0 = 4\pi \times 10^{-7}$ T m A^{-1}
 - vi. $h = 6.63 \times 10^{-34}$ J s
 - vii. $\epsilon_0 = 8.854 \times 10^{-12}$ $C^2 N^{-1} m^{-2}$
 - viii. Avogadro's number = 6.023×10^{23} per gram mole

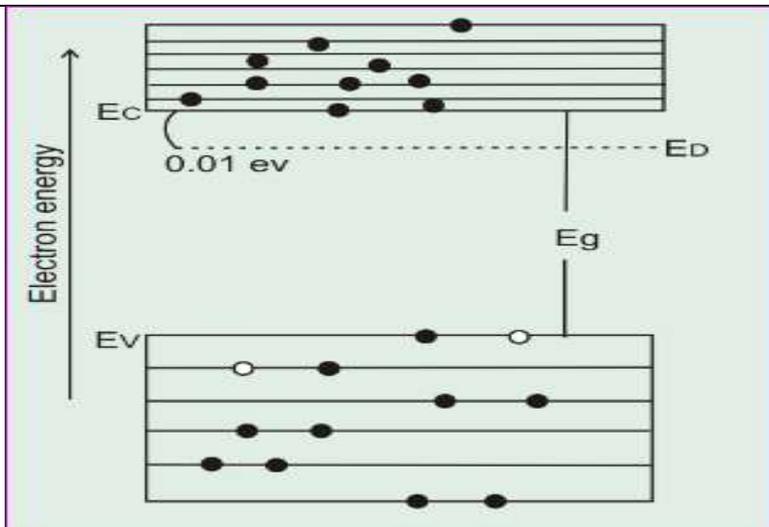
SECTION-A (MCQ)

Q1	The total flux through the faces of the cube with side of length a if charge q is placed at corner A of the cube is (a) $\frac{q}{8\epsilon_0}$ (b) $\frac{q}{4\epsilon_0}$ (c) $\frac{q}{2\epsilon_0}$ (d) $\frac{q}{\epsilon_0}$		1 MARK
Q2	According to Coulomb's law, which is the correct relation for the given figure? (a) $q_1 q_2 > 0$ (b) $q_1 q_2 < 0$ (c) $q_1 q_2 = 0$ (d) $1 > \frac{q_1}{q_2} > 0$		1 MARK
Q3	A straight wire is kept horizontally along east-west direction. If a steady current flows in the wire from east to west, the magnetic field at a point above the wire will point towards (a) east (b) west (c) north (d) south		1 MARK
Q4	Two long parallel wires kept 2m apart carry 3A current each, in the same direction. The force per unit length on one wire due to other is (a) $4.5 \times 10^{-5} Nm^{-1}$ attractive (b) $4.5 \times 10^{-7} Nm^{-1}$ repulsive (c) $9 \times 10^{-7} Nm^{-1}$ attractive (d) $9 \times 10^{-5} Nm^{-1}$ attractive		1 MARK

Q5	The voltage V and current I graphs for a conductor at two different temperatures T_1 and T_2 are shown in the figure. The relation between T_1 and T_2 is (a) $T_1 > T_2$ (b) $T_1 < T_2$ (c) $T_1 = T_2$ (d) $T_1 = 2T_2$		1 MARK
Q6	The magnetic flux linked with the coil (in weber) is given by the equation $\phi = 5t^2 + 3t + 16$. The induced EMF in the coil at time $t=4$ sec will be (a) -27 V (b) -43 V (c) -108 V (d) 210 V		1 MARK
Q7	Figure shows the variation of inductive reactance X_L of two ideal inductors of inductance L_1 and L_2 , with angular frequency ω . L_1/L_2 is (a) $\sqrt{3}$ (b) $\frac{1}{\sqrt{3}}$ (c) 3 (d) $\frac{1}{3}$		1 MARK
Q8	In the process of charging of a capacitor the current produced between the plate of the capacitor is (a) $\mu_0 \frac{d\phi_E}{dt}$ (b) $\frac{1}{\mu_0} \frac{d\phi_E}{dt}$ (c) $\epsilon_0 \frac{d\phi_E}{dt}$ (d) $\frac{1}{\epsilon_0} \frac{d\phi_E}{dt}$		1 MARK
Q9	For a concave mirror of focal length ' f ' the minimum distance between the object and its real image is (a) Zero (b) f (c) $2f$ (d) $4f$		1 MARK
Q10	The coherence of two light sources means that the light waves emitted have (a) Same frequency (b) same intensity (c) constant phase difference (d) same velocity		1 MARK
Q11	The energy of an electron in the ground state of hydrogen atom is -13.6 eV. The kinetic energy and potential energy of the electron in the first excited state will be (a) -13.6eV, 27.2 eV (b) -6.8eV, 13.6eV (c) 3.4eV, -6.8eV (d) 6.8eV, -3.4eV		1 MARK
Q12	Two nuclei have their mass numbers in the ratio of 1:27. What is the ratio of their nuclear densities? (a) 1:27 (b) 1:1 (c) 1:9 (d) 1:3		1 MARK
(ASSERTION- REASON)			
<p>Directions : Each of these questions contain two statements, Assertion and Reason. Each of these questions also has four alternative choices, only one of which is the correct answer. You have to select one of the codes (a), (b), (c) and (d) given below.</p> <p>(a) Assertion is correct, reason is correct; reason is a correct explanation for assertion. (b) Assertion is correct, reason is correct; reason is not a correct explanation for assertion (c) Assertion is correct, reason is incorrect (d) Assertion is incorrect, reason is incorrect.</p>			
Q13	Assertion- Work done by electric field on moving a positive charge on an equipotential surface is always zero. Reason- Electric lines of force are always perpendicular to equipotential surfaces.		1 MARK
Q14	Assertion- Propagation of light through an optical fibre is due to total internal reflection taking place at the core-cladding interface. Reason- Refractive index of the material of the cladding of the optical fibre is greater than that of the core.		1 MARK
Q15	Assertion- In Young's double slit experiment all fringes are of equal width.		1 MARK

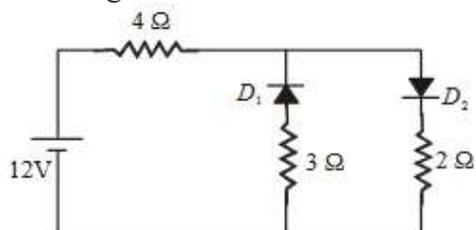
	Reason- The fringe width depends upon wavelength of light (λ) used, distance of screen from plate of slits(D) and slits separation(d).												
Q16	Assertion- An alpha particle is moving towards a gold nucleus. The impact parameter is maximum for the scattering angle of 180° Reason- The impact parameter in an alpha particle scattering experiment does not depend upon the atomic number of the target nucleus.	1 MARK											
SECTION-B (2 MARKS)													
Q17	Four point charges of $1\mu\text{C}$, $-2\mu\text{C}$, $1\mu\text{C}$ and $-2\mu\text{C}$ are placed at the corners A, B, C, and D respectively, of a square of side 30cm. Find the net force acting on a charge of $4\mu\text{C}$ placed at the centre of the square.	2 MARKS											
Q18	A battery of emf 12V and internal resistance 4Ω is connected to an external resistance R. If the current in the resistance is 0.5A, calculate the value of (a) R, and (b) the terminal voltage of the battery.	2 MARKS											
Q19	An element $\vec{dl} = \Delta x \rightarrow 0$ is placed at the origin and carries a large current $I = 10 \text{ A}$ along X-axis . What is the magnetic field on the y-axis at a distance of 0.5 m. $\Delta x = 1\text{cm}$. OR		2 MARKS										
Q19	A uniform magnetic field get modified as shown in figure, when two specimens A and B are placed in it (i) Identify the specimen A and B. (ii) How is the magnetic susceptibility of specimen A is different from that of specimen B.		2 MARKS										
Q20	The voltage between the plates of a parallel plate capacitor of capacitance $1.0\mu\text{F}$ is changing at the rate of 5 V s^{-1} . What is the displacement current in the capacitor?	2 MARKS											
Q21	If light of wavelength 412.5 nm is incident on each of the metals given below, which one will show photoelectric emission and why?	<table border="1"> <thead> <tr> <th>Metal</th> <th>Work Function(eV)</th> </tr> </thead> <tbody> <tr> <td>Na</td> <td>1.92</td> </tr> <tr> <td>K</td> <td>2.15</td> </tr> <tr> <td>Ca</td> <td>3.20</td> </tr> <tr> <td>Mo</td> <td>4.17</td> </tr> </tbody> </table>	Metal	Work Function(eV)	Na	1.92	K	2.15	Ca	3.20	Mo	4.17	2 MARKS
Metal	Work Function(eV)												
Na	1.92												
K	2.15												
Ca	3.20												
Mo	4.17												
Q21	OR	2 MARKS											
	Using Rydberg formula calculate the longest wavelength belonging to Lyman and and shortest wavelength in Balmer series. In which region of hydrogen spectrum do these transitions lie? ($R = 1.0 \times 10^7 \text{ m}^{-1}$)												
SECTION-C (3 MARKS)													
Q22	State Kirchhoff's laws. Derive condition for balanced Wheatstone bridge.	3											
Q23	Explain the process of formation of 'depletion layer' and 'potential barrier' in a p-n junction region of a diode, with the help of a suitable diagram. Which feature of junction diode makes it suitable for its use as a rectifier?	3 MARKS											
Q24	Calculate binding energy per nucleon for ${}_{26}^{56}\text{Fe}$. $M({}_{26}^{56}\text{Fe}) = 55.934939 u$, $m_n = 1.008665 u, m_p = 1.007825 u$	3 MARKS											
Q25	In Young's double slit experiment, the slits S_1 and S_2 are 3 mm apart and the screen is placed 1.0 m away from the slits. It is observed that the fourth bright fringe is at a distance of 5 mm	3 MARKS											

	from the second dark fringe. Find the wavelength of light used.		
Q26	Three rays (1,2,3) of different colours fall normally on one of the sides of an isosceles right angled prism as shown. The refractive index of prism for these rays is 1.39,1.47 and 1.52 respectively. Find which of these rays get internally reflected and which get only refracted from AC. Trace the paths of rays. Justify your answer with the help of necessary calculations.		3 MARKS
Q27	The wire loop PQRSP formed by joining two semicircular wires of radii R_1 and R_2 carries a current I as shown. The magnitude of the magnetic induction at the centre C is OR		3 MARKS
Q27	A galvanometer is converted into a voltmeter of range $(0-V)$ volt using a resistor of 9900Ω . If a resistor of 4900Ω is used, the range becomes half, i.e. $(0-V/2)$ volt. Calculate: (a) Resistance of galvanometer (b) Resistance required to convert it into a voltmeter of range $(0-2V)$ volt		3 MARKS
Q28	Three identical closed coils A, B and C are placed with their planes parallel to one another. Coils A and C carry equal currents as shown in fig. Coils B and C are fixed in position and coil A is moved towards B with uniform motion. Is there any induced current in B? If no, give reasons. If yes mark the direction of the induced current in this diagram.		3 MARKS
SECTION-D (CASE STUDY)			
Q29	When the diode is forward biased, it is found that beyond forward voltage $V = V_k$, called knee voltage, the conductivity is very high. At this value of battery biasing for the p-n junction, the potential barrier is overcome, and the current increases rapidly with an increase in forwarding voltage. When the diode is reverse biased, the reverse bias voltage produces a very small current of about a few microamperes which almost remains constant with bias. This small current is a reverse saturation current. Q1-In which of the following figures, the p-n diode is forward biased		4 MARKS
	Q2-Identify which type of extrinsic semiconductor it is		



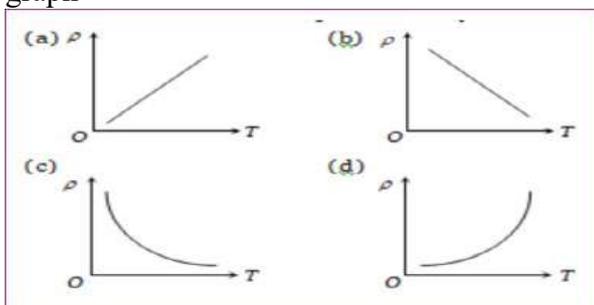
- (a) P-type semiconductor (b) n-type semiconductor
 (c) intrinsic semiconductor (d) none of these

Q3- The circuit has two oppositely connect ideal diodes in parallel. What is the current following in the circuit



- (a) 1.33A (b) 1.71A (c) 2.00A (d) 2.31A

Q4-The temperature dependence of resistivity of a semiconductor is represented by which graph

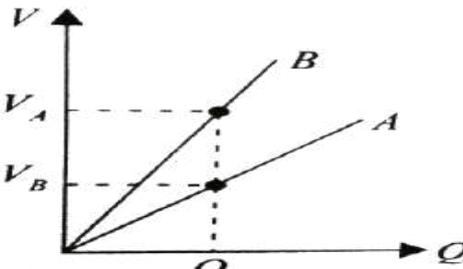


Q30 The concept of 'wave nature of matter' was postulated by de Broglie in 1924. It was confirmed experimentally by Davisson and Germer a few years after its postulation. Therefore, the realization was that 'wave nature' and 'particle nature' can be viewed as the 'two sides of a coin'. Both matter and radiation can exhibit either of these 'natures', depending on the experimental situation. The phenomena of photoelectric effect and the concept of 'matter waves', have been put to very useful and interesting practical applications. We are aware of photocells, automatic doors at shops and malls, automatic light switches that turn on the lights as soon as the intensity drops.

4
 MARKS
 (2+1+1)

Q1. The kinetic energy of the electron orbiting in the first excited state of Hydrogen atom is 3.4eV. Determine the de-Broglie wavelength associated with it.

Q2. In what ways are matter waves different from electromagnetic waves?

	Q3. A proton and an electron have same kinetic energy. Which of them will have greater de-Broglie wavelength associated with it? Justify.	
SECTION-F (5 MARKS)		
Q31 (i)	<p>(a) A dielectric slab of thickness t, is introduced between the plates of parallel plate capacitor of area A and separation d ($t < d$). Find an expression for the capacitance with the dielectric slab.</p> <p>(b) The given graph shows the variation of voltage V across the plates of two capacitors A and B versus increase in charge Q stored in them. Which of the capacitors has higher capacitance? Give reason for your answer</p>  <p>(c) Depict equipotential surfaces due to an electric dipole.</p> <p style="text-align: center;">OR</p>	5 MARKS (3+1+1)
Q31	<p>(a) What is a parallel plate capacitor? Derive an expression for its capacitance. On what factors does the capacitance of a parallel plate capacitor depend?</p> <p>(b) What is electrostatic shielding?</p> <p>(c) Sketch a graph to show how the capacitance C varies with the charge Q given to it.</p>	5 MARKS (3+1+1)
Q32 (i)	<p>(A) Derive lens maker's formula.</p> <p>(B) The radii of curvature of the two surfaces of a concave lens are 20cm each. Find the refractive index of the material of the lens if its power is -5.0 D</p> <p style="text-align: center;">OR</p>	5 MARKS (3+2)
Q32 (ii)	<p>(A) Define angle of deviation in a prism?</p> <p>(B) Obtain the relation $A + \delta = i + e$ for a prism where A is the angle of prism, δ is the angle of deviation, i is the angle of incidence and e is the angle of emergence. Write this relation for the minimum deviation?</p> <p>(C) Write the condition for minimum deviation.</p>	5 MARKS (1+3+1)
Q33 (i)	<p>(A) How can a galvanometer be converted to an ammeter? Show required circuit diagram.</p> <p>(B) A galvanometer of resistance 50Ω is converted into a voltmeter of range (0-2V) using a resistor of $1.0 \text{ k}\Omega$. If it is to be converted into a voltmeter of range (0-10V). What will be the value of required resistance for this?</p> <p>(C) What do you mean by figure of merit of a galvanometer?</p> <p style="text-align: center;">OR</p>	5 MARKS (2+2+1)
Q33 (ii)	<p>(a) Explain the principle, and working of an a.c generator. Derive the expression for the induced emf and current.</p> <p>(b) An ac voltage $V_i = 140 \sin(100\pi t)$ V is applied to the primary coil having 200 turns, of an ideal transformer and it supplies a power of a 5kW. If the secondary coil has 1000 turns, find</p> <p>(i) the instantaneous voltage across the secondary coil</p> <p>(ii) the current in the secondary coil. (take $\sqrt{2} = 1.4$)</p>	5 MARKS 3+2