पीएमश्री केन्द्रीय विद्यालय क्र. 1, सागर

जबलपुर संभाग

PMSHRI KENDRIYA VIDYALAYA NO.1 SAGAR

JABALPUR REGION

विद्यार्थी सहायक पुस्तिका

STUDENT HELP BOOK

For

कक्षा CLASS : दसवीं / X

(2025-26)

- **CBSE Notification for Two Board System**
- **Attendance Requirement circular by CBSE**
- **Syllabus by CBSE**
- **Question Bank**
- **Sample Question papers with Marking Scheme**

Initiative under

Learning Enhancement Programme of PM SHRI Scheme

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Sh. Paras Jain , Computer Instructor

CONTENT

(ENGLISH, HINDI, MATHS, SCIENCE, SOCIAL SCIENCE)

- CBSE Notification for Two Board System
- Attendance Requirement circular by CBSE
- SYLLABUS as prescribed by CBSE
- Question Bank
- SAMPLE PAPERS with Marking scheme (as issued by CBSE)

केन्द्रीय माध्यमिक शिक्षा बोर्ड
(शिक्षा मंत्रालय भारत सरकार के अधीन एक स्वायत्त संगठन)
CENTRAL BOARD OF SECONDARY EDUCATION
(An Autonomous Organisation under the Ministry of Education, Govt. of India)

CBSE/CE/2-Board Examinations-X/2025 Dated:- 25.06.2025

Notification

Sub:- Two Board Examinations in Class X from 2026- regarding

Background

Para 4.37 of National Education Policy-2020 stipulate that **"To further eliminate the 'high stakes' aspect of Board Exams, all students will be allowed to take Board Exams on up to two occasions during any given school year, one main examination and one for improvement, if desired."**

Further, in PARA 4.38 it is mentioned that **"In addition to introducing greater flexibility, student choice, and best-of-two attempts, assessments that primarily test core capacities must be the immediate key reforms to all Board exams. Boards may over time also develop further viable models of Board Exams that reduce pressure and the coaching culture. Some possibilities include: a system of annual/semester/modular Board Exams could be developed - that each test far less material, and are taken immediately after the corresponding course is taken in school - so that the pressure from exams is better distributed, less intense, and less high-stakes across the Secondary Stage; all subjects and corresponding assessments, beginning with mathematics, could be offered at two levels, with students doing some of their subjects at the standard level and some at a higher level; and Board exams in certain subjects could be redesigned to have two parts – one part of an objective type with multiple-choice questions and the other of a descriptive type."**

Decision by the CBSE

As per the recommendations of the NEP-2020 and stakeholders consultations, CBSE has decided to implement the policy of two Board Examinations in Class X from 2026 examinations.

-Page-2/-

Scheme of Two Board Examinations

(i). General Conditions

1. It is mandatory for all the students to appear in the first Board examination.
2. All passed and eligible students will be allowed to improve their performance in any of the three subjects out of Science, Mathematics, Social Science and languages.
3. If a student has not appeared in 3 or more subjects in first examination, then s/he will not be allowed to appear in the 2nd examination. Such students will be placed in the "Essential Repeat" category and can take the examination only next year in the main examinations in the month of February next year.
4. For students whose result in the first examination is Compartment, such students will be allowed to appear in second examination under Compartment Category.
5. Additional Subjects will not be permitted after passing class X, students will not be allowed in stand-alone subjects.

(ii). Scheme for Special Category

1. Sports students will be allowed to appear in 2nd examinations in the subjects whose examinations have coincides with their sports event.
2. Winter Bound Schools' students may choose to appear either in first examinations or second examinations in offered subjects.
3. The facilities extended to CWSN candidates will be extended in 2nd examinations also.

(iii). Conduct of Internal Assessment

1. Internal assessment will be conducted only once before the main examinations.

(iv). Schedule of the Examinations

1. Main or 1st examinations will begin from Mid-February as conducted now.
2. Second examination will be conducted in the month of May.

-Page-3/-

(v). Eligibility Criteria for Appearing in the Examinations

1. First examination will be the main examination. The eligibility to appear in the first examination will be:

   (a) Fresh students of Class X

   (b) Second Chance Compartment

   (c) Essential Repeat of previous year

   (d) Improvement examination

2. The eligibility to appear in the second examination will be:

   (a) Improvement category up to 3 main subjects

   (b) First/Third Chance Compartment

   (c) Compartment + Improvement

   (d) Improvement for the students passed by the replacement of the subject.

(vi). Syllabus and Scheme of Examinations

1. Both the examinations will be conducted on the full syllabus meant for the year.

2. The scheme of studies and scheme of examinations will remain the same.

(vii). LOC Submission for the examinations

1. Filling of LOC and appearing in the Main/first examination will be compulsory.
2. LOC for the 2nd examinations will be filled in separately. However, no new names will be added to the LOC of the 2nd examination.
3. Subject change will not be allowed from first examination to second examinations except permitted as per policy.

(viii). Result Declaration

1. Result of all the students will be declared as per Examination Bye-Laws.
2. Result of First examinations will be declared in the month of April.

3. Result of second examinations will be declared in the month of June.
4. Performance of main examination will be made available in DigiLocker. This could be used for admission to class XI if the student does not wish to appear in 2nd examinations for improvement. Passing document will be issued to all the students after the results of Second examinations.
5. Merit certificate will also be issued only after second examination.

(ix). Post Result Facilities

1. Facilities of Photocopy, verification and re-evaluation will be available only after declaration of results of 2nd examination for both the examinations i.e. Main and 2nd examinations.

(x). Admission in Class XI

1. Students not qualified in the main examination will be allowed provisional admission in Class XI and based on the result of the 2nd examination, their admission will be confirmed.

All schools are accordingly directed to bring the policy of two examinations 2025-2026 to the notice of parents and students and to orient them well about the policy. It is also directed to collect all relevant data correctly from students for filling up of LOC with correct subjects offered by them.

As Board will hold two examinations, hence, it is desired from the parents, students and schools that they will take ensure timely completion of all the activities with correct data.

25/6/25

Dr Sanyam Bhardwaj
(Controller of Examinations)

केन्द्रीय माध्यमिक शिक्षा बोर्ड
(शिक्षा मंत्रालय, भारत सरकार के अधीन एक स्वायत्त संगठन)

CENTRAL BOARD OF SECONDARY EDUCATION
(An Autonomous Organisation under the Ministry of Education, Govt. of India)

CBSE/COORD/Shortage-Attend./2025 Dated: 04.08.2025

To

The Principal/Head of Schools
Affiliated to CBSE
(Through CBSE Website)

Please read and understand this communication so that directions could be implemented strictly.

Subject: Strict Compliance with attendance requirements as per CBSE Examination Bye-Laws for Board Examination Eligibility – reg.

This is in continuation of circular No. CBSE/CE/Coord/2024 /e-file-163685/ dated 09.10.2024 wherein it was directed to all schools to adhere to Rules 13 and 14 of the CBSE Examination Bye-Laws strictly regarding student attendance for Class X and XII Board examinations-2024-2025.

In light of above, the same is being reiterated for both the academic session 2025-2026 and Examination 2025-2026. As per the CBSE Examination Bye Laws Rule 13 and 14, a minimum of 75% attendance is mandatory for students to be eligible to appear for the Board examinations. The Board offers a 25% relaxation only in cases of exigencies such as medical emergencies, participation in national or international sports events, and other serious reasons, if supported by the necessary documents/record.

Schools are hereby directed to ensure the following:

1. **Inform Students and Parents:** All students and parents must be made aware of the mandatory 75% attendance requirement criteria and the potential consequences of not meeting this criteria. Any student, if on leave due to a medical or any other reason, needs to apply for the leave to the school with proper medical and other documents at the time of availing leave. Leave without a written request will be considered unauthorized absence from the school.

2. **Leave Procedures:** In case of medical emergencies, students must submit a leave application along with valid medical documentation immediately after availing the leave. For other reasons, Students must inform the school of their absence with a valid reason and only in writing. If it is observed at the time of sudden inspection of the schools by CBSE that students are absent without proper leave records, it will be presumed that they are not attending the schools regularly and may be treated as non-attending/dummy candidates. **CBSE shall not allow such students to appear in the Board examinations.**

Contd...2/

3. **Attendance Monitoring**: Schools must regularly monitor and maintain correct attendance records. Attendance registers should be updated daily, signed by the class teacher and the competent authority of the school and be readily available for inspection by the CBSE.

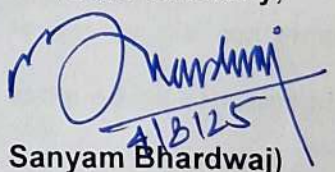
4. **Parental Communication**: In case a student frequently misses school or fails to meet the attendance requirement, the school should inform the parents in writing through Registered/Speed Post, e-mail stressing the importance of regular attendance and also failure to comply attendance norms may result in the student being disqualified from appearing in the board exams. Keep record of communication safely. A copy of this communication be sent to the parents of all the schools through e-mail for the information and strict compliance by the students and parents.

5. **Inspections by the CBSE**: The Board may conduct surprise inspections to verify student attendance records. During such inspections, if it is found that the records are incomplete or if it is manifest that students have not been attending the school regularly may face strict action, including disaffiliation. The students may be disqualified from appearing in the board exams.

Please note that no changes to the attendance records will be permitted once the school has submitted the shortage of attendance cases to the CBSE. Attached to this letter, you will also find the Standard Operating Procedures (SOPs) for condoning the shortage of attendance and a Proforma to be used when submitting cases for condonation.

Regular attendance is not only essential for meeting the Board's examination requirements but also for fostering responsible and well-rounded individuals. Therefore, it is once again directed to all schools to disseminate the above information to their students timely.

Yours faithfully,



(Dr. Sanyam Bhardwaj)
Controller of Examinations

Copy to web admin with the request to upload on the CBSE website.

ENGLISH LANGUAGE AND LITERATURE
CLASS-X (2025-26)

SECTION - WISE WEIGHTAGE

Sections		Weightage
A	Reading Skills	20 Marks
B	Writing Skills with Grammar	20 Marks
C	Language through Literature	40 Marks

Section A
Reading Skills

I. Reading Comprehension through Unseen Passage **20 Marks**

1. Discursive passage of 400-450 words. **10 marks**

2. Case-based factual passage (with visual input- statistical data, chart etc.) of 200-250 words. **10 marks**

(**Total length of two passages to be 600-700 words)**

Multiple Choice Questions / Objective Type Questions, and Short Answer Questions (to be answered in 30-40 words) will be asked to assess comprehension, interpretation, analysis, inference, evaluation and vocabulary.

Section B
Writing Skills and Grammar

II Grammar **10 Marks**

- Determiners
- Tenses
- Modals
- Subject – verb concord
- Reported speech
  - Commands and requests
  - Statements
  - Questions

3. The courses at the secondary level seek to cement high professional grasp of grammatical items and levels of accuracy. Accurate use of spelling, punctuation and grammar in context willbe assessed through Gap Filling/ Editing/Transformation exercises. Ten out of 12 questions will have to be attempted.

III. **Writing Skills** **10 marks**

4. Writing a Formal Letter based on a given situation, in 100-120 words. One out of two questions is to be answered**.** **5 marks**

5. Writing an Analytical Paragraph in 100-120 words on a given Map/ Chart/ Graph/Cue/s. One out of two questions is to be answered**.** **5 marks**

Section C **40 Marks**

Language through Literature

IV. Reference to the Context **5+5=10 Marks**

6. One extract out of two from Drama / Prose.

7. One extract out of two from poetry.

Multiple Choice Questions / Objective Type Questions Very Short Answer Questions (one word/ One sentence), Short Answer Questions (to be answered in 30-40 words) will be asked to assess inference, analysis, interpretation, evaluation and vocabulary.

V. Short & Very Long Answer Questions **30 Marks**

8. Four out of Five Short Answer Type Questions to be answered in 40-50 words from the bookFIRST FLIGHT to assess interpretation, analysis, inference and evaluation. **4x3=12 marks**

9. Two out of Three Short Answer Type Questions to be answered in 40-50 words each from FOOTPRINTS WITHOUT FEET to assess interpretation, analysis, inference and evaluation. **2x3=6 marks**

10. One out of two Long Answer Type Questions from FIRST FLIGHT to be answered in about100-120 words each to assess creativity, imagination and extrapolation beyond the text andacross the text. This can be a passage-based question taken from a situation/plot from the text. **6 marks**

11. One out of two Long Answer Type Questions from FOOTPRINTS WITHOUT FEET, on theme or plot involving interpretation, extrapolation beyond the text and inference or character sketch to be answered in about 100-120 words. **6 marks**

Prescribed Books: Published by NCERT, New Delhi

1. FIRST FLIGHT

A. Prose

1. A Letter to God
2. Nelson Mandela - Long Walk to Freedom
3. Stories About Flying
4. From the Diary of Anne Frank
5. Glimpses of India
6. Mijbil the Otter
7. Madam Rides the Bus
8. The Sermon at Benares
9. The Proposal (Play)

B. Poems

1. Dust of Snow
2. Fire and Ice
3. A Tiger in the Zoo
4. How to Tell Wild Animals
5. The Ball Poem
6. Amanda!
7. The Trees
8. Fog
9. The Tale of Custard the Dragon
10. For Anne Gregory

2. FOOTPRINTS WITHOUT FEET

1. A Triumph of Surgery
2. The Thief's Story
3. The Midnight Visitor
4. A Question of Trust
5. Footprints Without Feet
6. The Making of a Scientist
7. The Necklace
8. Bholi
9. The Book that Saved the Earth

3. WORDS AND EXPRESSIONS – II (WORKBOOK FOR CLASS X) – Units 1 to 4 and Units 7 to 11

हिंदी पाठ्यक्रम -अ

विषय कोड - 002

कक्षा 10वीं (2025-26)

परीक्षा हेतु पाठ्यक्रम विनिर्देशन

खंड		भारांक
क	अपठित बोध	14
ख	व्यावहारिक व्याकरण	16
ग	पाठ्यपुस्तक एवं पूरक पाठ्यपुस्तक	30
घ	रचनात्मक लेखन	20

- **भारांक-{80(वार्षिक बोर्ड परीक्षा)+20 (आंतरिक परीक्षा)**

निर्धारित समय- 3 घंटे **भारांक-80**

वार्षिक बोर्ड परीक्षा हेतु भार विभाजन				
खंड – क (अपठित बोध)				
	विषयवस्तु		उप भार	कुल भार
1	अपठित गद्यांश व काव्यांश पर बोध, चिंतन, विश्लेषण, सराहना आदि पर बहुविकल्पीय, अतिलघूत्तरात्मक एवं लघूत्तरात्मक प्रश्न			14
	अ	एक अपठित गद्यांश लगभग 250 शब्दों का इसके आधार पर एक अंकीय तीन बहुविकल्पी प्रश्न (1x3=3), अतिलघूत्तरात्मक एवं लघूत्तरात्मक प्रश्न (2×2=4) पूछे जाएँगे	7	
	ब	एक अपठित काव्यांश लगभग 120 शब्दों का इसके आधार पर एक अंकीय तीन बहुविकल्पी प्रश्न (1x3=3), अतिलघूत्तरात्मक एवं लघूत्तरात्मक प्रश्न (2×2=4) पूछे जाएँगे	7	
2	व्याकरण के लिए निर्धारित विषयों पर विषयवस्तु का बोध, भाषिक बिंदु/ संरचना आदि पर अतिलघूत्तरात्मक/लघूत्तरात्मक प्रश्न। (1x16) (कुल 20 प्रश्न पूछे जाएँगे, जिनमें से केवल 16 प्रश्नों के उत्तर देने होंगे)			16
	खंड – ख (व्यावहारिक व्याकरण)			
	1	रचना के आधार पर वाक्य भेद (1x4=4) (5 में से 4 प्रश्न करने होंगे)	4	
	2	वाच्य (1x4=4) (5 में से 4 प्रश्न करने होंगे)	4	
	3	पद परिचय (1x4=4) (5 में से 4 प्रश्न करने होंगे)	4	

	4		अलंकार- (अर्थालंकार : उपमा, रूपक, उत्प्रेक्षा, अतिशयोक्ति, मानवीकरण) (1x4=4) (5 में से 4 प्रश्न करने होंगे)	4	
3			**खंड – ग (पाठ्यपुस्तक एवं पूरक पाठ्यपुस्तक)**		30
	अ		**गद्य खंड पाठ्यपुस्तक (क्षितिज भाग 2)**	11	
		1	क्षितिज (भाग 2) से निर्धारित पाठों में से गद्यांश के आधार पर विषयवस्तु का ज्ञान, बोध, अभिव्यक्ति आदि पर एक अंकीय पाँच **बहुविकल्पी प्रश्न** पूछे जाएँगे। (1x5)	5	
		2	क्षितिज (भाग 2) से निर्धारित पाठों में से विषयवस्तु का ज्ञान, बोध, अभिव्यक्ति आदि पर तीन प्रश्न पूछे जाएँगे।(विकल्प सहित- 25-30 शब्द-सीमा वाले 4 में से 3 प्रश्न करने होंगे) (2x3)	6	
	ब		**काव्य खंड (पाठ्यपुस्तक) (क्षितिज भाग 2)**	11	
		1	क्षितिज(भाग 2) से निर्धारित कविताओं में से काव्यांश के आधार पर एक अंकीय पाँच **बहुविकल्पी प्रश्न** पूछे जाएँगे (1x5)	5	
		2	क्षितिज (भाग 2) से निर्धारित कविताओं के आधार पर विद्यार्थियों का काव्यबोध परखने हेतु तीन प्रश्न पूछे जाएँगे। (विकल्प सहित-25-30 शब्द-सीमा वाले 4 में से 3 प्रश्न करने होंगे) (2x3)	6	
	स		**पूरक पाठ्यपुस्तक (कृतिका भाग – 2)**	8	
			कृतिका (भाग 2) से निर्धारित पाठों पर आधारित दो प्रश्न पूछे जाएँगे। (4x2) (विकल्प सहित-50-60 शब्द-सीमा वाले 3 में से 2 प्रश्न करने होंगे)	8	
4			**खंड – घ (रचनात्मक लेखन)**		
	i		विभिन्न विषयों और संदर्भों पर विद्यार्थियों के तर्कसंगत विचार प्रकट करने की क्षमता को परखने के लिए संकेत-बिंदुओं पर आधारित समसामयिक एवं व्यावहारिक जीवन से जुड़े हुए तीन विषयों में से किसी एक विषय पर लगभग 120 शब्दों में अनुच्छेद लेखन (6 x1 = 6)	6	20
	ii		अभिव्यक्ति की क्षमता पर केंद्रित औपचारिक अथवा अनौपचारिक विषयों में से किसी एक विषय पर लगभग 100 शब्दों में पत्र (5 x 1= 5)	5	
	iii		रोजगार से संबंधित रिक्तियों के लिए लगभग 80 शब्दों में स्ववृत्त लेखन (5 x 1= 5) अथवा विविध विषयों पर आधारित लगभग 80 शब्दों में ई-मेल लेखन (5 x 1= 5)	5	
	iv		विषय से संबंधित लगभग 40 शब्दों के अंतर्गत विज्ञापन लेखन (4 x 1 = 4)	4	

		अथवा संदेश लेखन लगभग 40 शब्दों में (शुभकामना, पर्व-त्योहारों एवं विशेष अवसरों पर दिए जाने वाले संदेश) (4 x 1 = 4)		
		कुल		**80**
		आंतरिक मूल्यांकन	**अंक**	20
	अ	**सामयिक आकलन**	5	
	ब	**बहुविध आकलन**	5	
	स	**पोर्टफ़ोलियो**	5	
	द	**श्रवण एवं वाचन**	5	
		कुल		**100**

निर्धारित पुस्तकें :

1. **क्षितिज, भाग–2,** एन.सी.ई.आर.टी., नई दिल्ली द्वारा प्रकाशित नवीनतम संस्करण
2. **कृतिका, भाग–2,** एन.सी.ई.आर.टी., नई दिल्ली द्वारा प्रकाशित नवीनतम संस्करण

नोट – निम्नलिखित पाठों से प्रश्न नहीं पूछे जाएँगे–

क्षितिज, भाग – 2	काव्य खंड	• देव- सवैया, कवित्त (पूरा पाठ) • गिरिजाकुमार माथुर – छाया मत छूना (पूरा पाठ) • ऋतुराज – कन्यादान (पूरा पाठ)
	गद्य खंड	• महावीरप्रसाद द्विवेदी – स्त्री-शिक्षा के विरोधी कुतर्कों का खंडन (पूरा पाठ) • सर्वेश्वर दयाल सक्सेना- मानवीय करुणा की दिव्य चमक (पूरा पाठ)
कृतिका, भाग – 2	• एही ठैयाँ झुलनी हेरानी हो रामा! (पूरा पाठ) • जार्ज पंचम की नाक (पूरा पाठ)	

कक्षा दसवीं हेतु प्रश्न पत्र का विस्तृत प्रारूप जानने के लिए कृपया बोर्ड द्वारा जारी आदर्श प्रश्न पत्र देखें।

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COURSE STRUCTURE CLASS –X

Units	Unit Name	Marks
I	NUMBER SYSTEMS	06
II	ALGEBRA	20
III	COORDINATE GEOMETRY	06
IV	GEOMETRY	15
V	TRIGONOMETRY	12
VI	MENSURATION	10
VII	STATISTICS AND PROBABILITY	11
	TOTAL	**80**

S. No.	Content	Competencies	Explanation
	UNIT I: NUMBER SYSTEMS		
1.	**REAL NUMBERS** 1. Fundamental Theorem of Arithmetic - statements after reviewing work done earlier and after illustrating and motivating through examples 2. Proofs of irrationality of $\sqrt{2}, \sqrt{3}, \sqrt{5}$	• Develops understanding of numbers, including the set of real numbers and its properties. • Extends the understanding of powers (radical powers) and exponents. • Applies Fundamental Theorem of Arithmetic to solve problems related to real life contexts.	• Describes Fundamental Theorem of Arithmetic with examples • Prove algebraically the Irrationality of numbers like $\sqrt{2}, \sqrt{3}, \sqrt{5}, 3 + 2\sqrt{5}$ etc.
	UNIT II: ALGEBRA		
1.	**POLYNOMIALS** 1. Zeros of a polynomial 2. Relationship between zeros and coefficients of quadratic polynomials.	• develops a relationship between algebraic and graphical methods of finding the zeroes of a polynomial.	• Find the zeros of polynomial graphically and algebraically and verifying the relation between zeros and coefficients of quadratic polynomials.

2.	**PAIR OF LINEAR EQUATIONS IN TWO VARIABLES** 1. Pair of linear equations in two variables and graphical method of their solution, consistency/inconsistency. 2. Algebraic conditions for number of solutions. 3. Solution of a pair of linear equations in two variables algebraically - by substitution, by elimination. Simple situational problems.	• Describes plotting a pair of linear equations and graphically finding the solution. • Models and solves contextualised problems using equations (e.g., simultaneous linear equations in two variables).	• Find the solution of pair of linear equations in two variables graphically and algebraically (substitution and elimination method)
3.	**QUADRATIC EQUATIONS** 1. Standard form of a quadratic equation $ax^2 + bx + c = 0, (a \neq 0)$. 2. Solutions of quadratic equations (only real roots) by factorization, and by using quadratic formula. Relationship between discriminant and nature of roots. 3. Situational problems based on quadratic equations related to day-to-day activities to be incorporated	• demonstrates strategies of finding roots and determining the nature of roots of a quadratic equation.	• Solves quadratic equations using factorization and quadratic formula • Determines the nature of roots using discriminant • Formulates and solves problems based on real life context
4.	**ARITHMETIC PROGRESSIONS** 1. Motivation for studying Arithmetic Progression 2. Derivation of the nth term and sum of the first n terms of AP and their application in solving daily life problems.	• Develops strategies to apply the concept of A.P. to daily life situations.	• Applies concepts of AP to find the nth term and sum of n terms. • Application of AP in real life problems

UNIT III: COORDINATE GEOMETRY			
1.	**Coordinate Geometry** **1. Review:** Concepts of coordinate geometry. Distance formula. Section formula (internal division).	• Derives formulae to establish relations for geometrical shapes in the context of a coordinate plane, such as, finding the distance between two given points, to determine the coordinates of a point between any two given points.	• Solves problems using distance formula and section formula
UNIT IV: GEOMETRY			
1.	**TRIANGLES** Definitions, examples, counter examples of similar triangles. 1. (Prove) If a line is drawn parallel to one side of a triangle to intersect the other two sides in distinct points, the other two sides are divided in the same ratio. 2. State (without proof) If a line divides two sides of a triangle in the same ratio, the line is parallel to the third side. 3. State (without proof) If in two triangles, the corresponding angles are equal, their corresponding sides are proportional and the triangles are similar. 4. State (without proof) If the corresponding sides of two triangles are proportional, their corresponding angles are equal and the two triangles are similar. 5. State (without proof) If one angle of a triangle is equal to one angle of another triangle and the sides including these angles are proportional, the two triangles are similar.	• works out ways to differentiate between congruent and similar figures. • establishes properties for similarity of two triangles logically using different geometric criteria established earlier such as, Basic Proportionality Theorem, etc.	• Prove Basic Proportionality theorem and applying the theorem and its converse in solving questions • Prove similarity of triangles using different similarity criteria

2.	**CIRCLES** Tangent to a circle at point of contact. 1. (Prove) The tangent at any point of a circle is perpendicular to the radius through the point of contact. 2. (Prove) The lengths of tangents drawn from an external point to a circle are equal.	• derives proofs of theorems related to the tangents of circles.	• Prove the theorems based on the tangent to a circle. • Applies the concept of tangents of circle to solve various problems.
UNIT V: TRIGONOMETRY			
1.	**INTRODUCTION TO TRIGONOMETRY** 1. Trigonometric ratios of an acute angle of a right-angled triangle. Proof of their existence (well defined) 2. Motivate the ratios whichever are defined at $0°$ and $90°$. Values of the trigonometric ratios of $30°$, $45°$ and $60°$. 3. Relationships between the ratios.	• Understands the definitions of the basic trigonometric functions (including the introduction of the sine and cosine functions).	• Evaluates trigonometric ratios • Describes trigonometric ratios of standard angles and solving related expressions
2.	**TRIGONOMETRIC IDENTITIES** 1. Proof and applications of the identity $\sin^2 A + \cos^2 A = 1$. 2. Only simple identities to be given.	• Uses Trigonometric identities to solve problems.	• Proves trigonometric identities using $\sin^2 A + \cos^2 A = 1$ and other identities
3.	**HEIGHTS AND DISTANCES: Angle of elevation, Angle of Depression.** 1. Simple problems on heights and distances. Problems should not involve more than two right triangles. Angles of elevation / depression should be only 30°, 45°, and 60°.	• Applies Trigonometric ratios in solving problems in daily life contexts like finding heights of different structures or distance from them.	• Find heights and distances in real life word problems using trigonometric ratios

UNIT VI: MENSURATION			
1.	**AREAS RELATED TO CIRCLES** 1. Area of sectors and segments of a circle. 2. Problems based on areas and perimeter /circumference of the above said plane figures. (In calculating area of segment of a circle, problems should be restricted to central angle of 60°, 90° and 120° only.	• Derives and uses formulae to calculate areas of plane figures.	• Visualises and evaluates areas of sector and segment of a circle
2.	**SURFACE AREAS AND VOLUMES** 1. Surface areas and volumes of combinations of any two of the following: cubes, cuboids, spheres, hemispheres and right circular cylinders/cones.	• Visualises and uses mathematical thinking to discover formulae to calculate surface areas and volumes of solid objects (cubes, cuboids, spheres, hemispheres, right circular cylinders/cones, and their combinations).	• Evaluates the surface areas and volumes of combinations of solids by visualisation
UNIT VII: STATISTICS AND PROBABILITY			
1.	**STATISTICS** 1. Mean, median and mode of grouped data (bimodal situation to be avoided).	• calculates mean, median and mode for different sets of data related with real life contexts.	• Computes the mean, of a grouped frequency distribution using direct, assumed mean and step deviation method. • Computes the median and mode of grouped frequency distribution by algebraic method
2.	**PROBABILITY** 1. Classical definition of probability. 2. Simple problems on finding the probability of an event.	• Applies concepts from probability to solve problems on the likelihood of everyday events.	• Determines the probabilities in simple real-life problems

MATHEMATICS- STANDARD (Code – 041)

QUESTION PAPER DESIGN

CLASS – X (2025-26)

Time: 3 Hours **Max. Marks: 80**

S. No.	Typology of Questions	Total Marks	% Weightage (approx.)
1	**Remembering:** Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. **Understanding:** Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	43	54
2	**Applying:** Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	19	24
3	**Analysing:** Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations **Evaluating:** Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. **Creating:** Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions	18	22
	Total	**80**	**100**

INTERNAL ASSESSMENT	**20 MARKS**
Pen Paper Test and Multiple Assessment (5+5)	10 Marks
Portfolio	05 Marks
Lab Practical (Lab activities to be done from the prescribed books)	05 Marks

MATHEMATICS-BASIC (Code – 241)

QUESTION PAPER DESIGN

CLASS – X (2025-26)

Time: 3Hours **Max. Marks: 80**

S. No.	Typology of Questions	Total Marks	% Weightage (approx.)
1	**Remembering:** Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. **Understanding:** Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	60	75
2	**Applying:** Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	12	15
3	**Analysing:** Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations **Evaluating:** Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. **Creating:** Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions	8	10
	Total	**80**	**100**

INTERNAL ASSESSMENT	**20 MARKS**
Pen Paper Test and Multiple Assessment (5+5)	10 Marks
Portfolio	05 Marks
Lab Practical (Lab activities to be done from the prescribed books)	05 Marks

PRESCRIBED BOOKS:

1. Mathematics - Textbook for class IX - NCERT Publication
2. Mathematics - Textbook for class X - NCERT Publication
3. Guidelines for Mathematics Laboratory in Schools, class IX - CBSE Publication
4. Guidelines for Mathematics Laboratory in Schools, class X - CBSE Publication
5. Laboratory Manual - Mathematics, secondary stage - NCERT Publication
6. Mathematics exemplar problems for class IX, NCERT publication
7. Mathematics exemplar problems for class X, NCERT publication.

COURSE STRUCTURE
CLASS X (2025-26)
(Annual Examination)

Time: 03 Hours **Marks: 80**

Unit No.	Unit	Marks
I	Chemical Substances-Nature and Behaviour	25
II	World of Living	25
III	Natural Phenomena	12
IV	Effects of Current	13
V	Natural Resources	05
	Total	**80**
	Internal assessment	**20**
	Grand Total	**100**

Theme: Materials

Unit I: Chemical Substances - Nature and Behaviour

Chemical Reactions and Equations: Chemical reactions, Chemical equation, Balanced chemical equation, types of chemical reactions: combination, decomposition, displacement, double displacement, precipitation, endothermic exothermic reactions, oxidation and reduction.

Acids, Bases and Salts: Acids and Bases – definitions in terms of furnishing of H+ and OH– ions, identification using indicators, chemical properties, examples and uses, neutralization, concept of pH scale (Definition relating to logarithm not required), importance of pH in everyday life; preparation and uses of Sodium Hydroxide, Bleaching powder, Baking soda, Washing soda and Plaster of Paris.

Metals and Non-metals: Properties of metals and non-metals; Reactivity series; Formation and properties of ionic compounds; Basic metallurgical processes; Corrosion and its prevention.

Carbon and its Compounds: Covalent bonds – formation and properties of covalent compounds, Versatile nature of carbon, Hydrocarbons – saturated and unsaturated Homologous series. Nomenclature of alkanes, alkenes, alkyne and carbon compounds containing functional groups (halogens, alcohol, ketones, aldehydes). Chemical properties of carbon compounds (combustion, oxidation, addition and substitution reaction). Ethanol and Ethanoic acid (only properties and uses), soaps and detergents.

Theme: The World of the Living

Unit II: World of Living

Life processes: 'Living Being'. Basic concept of nutrition, respiration, transport and excretion in plantsand animals.

Control and co-ordination in animals and plants: Tropic movements in plants; Introduction of plant hormones; Control and co-ordination in animals: Nervous system; Voluntary, involuntary and reflex action; Chemical co-ordination: animal hormones.

Reproduction: Reproduction in animals and plants (asexual and sexual) reproductive health - need and methods of family planning. Safe sex vs HIV/AIDS. Child bearing and women's health.

Heredity and Evolution: Heredity; Mendel's contribution- Laws for inheritance of traits: Sex determination; brief introduction.

Theme: Natural Phenomena

Unit III: Natural Phenomena

Reflection of light by curved surfaces; Images formed by spherical mirrors, centre of curvature, principal axis, principal focus, focal length, mirror formula (Derivation not required), magnification.

Refraction; Laws of refraction, refractive index.

Refraction of light by spherical lens; Image formed by spherical lenses; Lens formula (Derivationnot required); Magnification. Power of a lens.

Functioning of a lens in human eye, defects of vision and their corrections, applications ofspherical mirrors and lenses.

Refraction of light through a prism, dispersion of light, scattering of light, applications in daily life (excluding colour of the sun at sunrise and sunset).

Theme: How Things Work

Unit IV: Effects of Current

Electric current, potential difference and electric current. Ohm's law; Resistance, Resistivity, Factors on which the resistance of a conductor depends. Series combination of resistors, parallel combination of resistors and its applications in daily life. Heating effect of electric current and its applications in daily life. Electric power, Interrelation between P, V, I and R.

Magnetic effects of current: Magnetic field, field lines, field due to a current carrying conductor, field due to current carrying coil or solenoid; Force on current carrying

conductor, Fleming's Left Hand Rule, Direct current. Alternating current: frequency of AC. Advantage of AC over DC. Domestic electric circuits.

Theme: Natural Resources

Unit V: Natural Resources

Our environment: Eco-system, Environmental problems, Ozone depletion, waste production and their solutions. Biodegradable and non-biodegradable substances.

Note for the Teachers:

The NCERT text books present information in boxes across the book. These help students to get conceptual clarity. However, the information in these boxes would not be assessed in the year-end examination.

PRACTICALS

Practical should be conducted alongside the concepts taught in theory classes.

LIST OF EXPERIMENTS

1. A. Finding the pH of the following samples by using pH paper/universal indicator: **Unit-I**

a) Dilute Hydrochloric Acid
b) Dilute NaOH solution
c) Dilute Ethanoic Acid solution
d) Lemon juice
e) Water
f) Dilute Hydrogen Carbonate solution

B. Studying the properties of acids and bases (HCl & NaOH) on the basis of their reaction with: **Unit-I**

a) Litmus solution (Blue/Red)
b) Zinc metal
c) Solid sodium carbonate

2. Performing and observing the following reactions and classifying them into: **Unit-I**

a) Combination reaction
b) Decomposition reaction
c) Displacement reaction
d) Double displacement reaction

- Action of water on quicklime
- Action of heat on ferrous sulphate crystals
- Iron nails kept in copper sulphate solution
- Reaction between sodium sulphate and barium chloride solutions

3. Observing the action of Zn, Fe, Cu and Al metals on the following salt solutions: **Unit-I**

a) $ZnSO_4$ (aq)
b) $FeSO_4$ (aq)
c) $CuSO_4$ (aq)
d) $Al_2 (SO_4)_3$ (aq)

Arranging Zn, Fe, Cu and Al (metals) in the decreasing order of reactivity based on theabove result.

4. Studying the dependence of potential difference (V) across a resistor on the current (I) passing through it and determine its resistance. Also plotting a graph between V and I. **Unit-IV**

5. Determination of the equivalent resistance of two resistors when connected in series and parallel. **Unit-IV**

6. Preparing a temporary mount of a leaf peel to show stomata. **Unit- II**

7. Experimentally show that carbon dioxide is given out during respiration. **Unit-II**

8. Study of the following properties of acetic acid (ethanoic acid): **Unit- I**

a) Odour
b) solubility in water
c) effect on litmus
d) reaction with Sodium Hydrogen Carbonate

9. Study of the comparative cleaning capacity of a sample of soap in soft and hard water. **Unit- I**

10. Determination of the focal length of: **Unit-III**

a) Concave mirror
b) Convex lens by obtaining the image of a distant object.

11. Tracing the path of a ray of light passing through a rectangular glass slab for different angles of incidence. Measure the angle of incidence, angle of refraction, angle of emergence andinterpret the result. **Unit - III**

12. Studying (a) binary fission in *Amoeba,* and (b) budding in yeast and Hydra with the help of prepared slides. **Unit-II**

13. Tracing the path of the rays of light through a glass prism. **Unit-III**

14. Identification of the different parts of an embryo of a dicot seed (pea, gram or red kidney bean). **Unit-II**

PRESCRIBED BOOKS:

- Science-Textbook for class IX-NCERT Publication
- Science-Text book for class X- NCERT Publication
- Assessment of Practical Skills in Science-Class IX - CBSE Publication
- Assessment of Practical Skills in Science- Class X- CBSE Publication
- Laboratory Manual-Science-Class IX, NCERT Publication
- Laboratory Manual-Science-Class X, NCERT Publication
- Exemplar Problems Class IX – NCERT Publication
- Exemplar Problems Class X – NCERT Publication
- Reading Material – Science – Class IX – CBSE

Question Paper Design (Theory)

Class X (2025-26)

Science (086)

Theory (80 marks)

Competencies	Total
Demonstrate Knowledge and Understanding	50 %
Application of Knowledge/Concepts	30 %
Formulate, Analyze, Evaluate and Create	20 %

Note:

- Typology of Questions: VSA including objective type questions, Assertion – Reasoning type questions; SA; LA; Source-based/ Case-based/ Passage-based/ Integrated assessment questions.
- An internal choice of approximately 33% would be provided.

Internal Assessment (20 Marks)

- **Periodic Assessment** - 05 marks + 05 marks
- **Subject Enrichment** (Practical Work) - 05 marks
- **Portfolio** - 05 marks

Suggestive verbs for various competencies

- **Demonstrate Knowledge and Understanding**

  State, name, list, identify, define, suggest, describe, outline, summarize, etc.

- **Application of Knowledge/Concepts**

  Calculate, illustrate, show, adapt, explain, distinguish, etc.

- **Formulate, Analyze, Evaluate and Create**

  Interpret, analyze, compare, contrast, examine, evaluate, discuss, construct, etc.

CLASS X -2025-26
COURSE STRUCTURE

History (India and the Contemporary World-II)			**20 Marks inclusive of map pointing**
Section	**Chapter No.**	**Chapter name**	**Marks**
I Events and processes	I	The Rise of Nationalism in Europe	18+2 map pointing
	II	Nationalism in India	
II Livelihoods, Economies and Societies	III	The Making of a Global World (**To be evaluated in the Board Examination** Subtopics: 1 to 1.3 Pre Modern World to Conquest, disease and trade)	
		Interdisciplinary project as part of multiple assessments (Internally assessed for 5 marks) Subtopics 2 to 4.4 –The nineteenth century (1815-1914) to end of Bretton Woods & the beginning of "Globalisation"	
	IV	The Age of Industrialisation (**To be assessed as part of Periodic Assessment only**)	
III. Everyday Life, Culture and politics	V	Print Culture and the Modern world	

Geography (Contemporary India-II)		**Marks-20 inclusive map pointing**
Chapter No.	**Chapter Name**	**Marks**
1	Resources and Development	17+3 map pointing
2	Forest and Wildlife Resources	
3	Water resources	
4	Agriculture	
5	Minerals and energy Resources	
6	Manufacturing Industries	
7	Lifelines of National Economy (Only map pointing to be evaluated in the Board Examination)	

	Interdisciplinary project as part of multiple assessments (Internally assessed for 5 marks)		
Political Science (Democratic Politics-II)			**20**
Unit No.	**Chapter No.**	**Chapter name**	**Marks**
I	1	Power-sharing	20
	2	Federalism	
II	3	Gender, Religion and Caste	
III	4	Political Parties	
IV	5	Outcomes of Democracy	
Economics (Understanding Economic Development)			**20**
Chapter No.	**Chapter name**		**Marks**
1	Development		20
2	Sectors of the Indian Economy		
3	Money and Credit		
4	• Globalisation and the Indian Economy to be evaluated in the Board Examination • What is Globalisation? • Factors that have enabled Globalisation		
	• Interdisciplinary project as part of multiple assessment (Internally assessed for 5 marks) • Production across the countries • Chinese toys in India • World Trade Organisation • The Struggle for a Fair Globalisation		
5	Consumer Rights (Project Work)		

CLASS X (2025-26)
COURSE CONTENT

HISTORY: India and the Contemporary World - II

Chapter I -The Rise of Nationalism in Europe

Learning outcome- The students will be able to

- Infer how French Revolution had an impact on the European countries in the making of a nation state.
- Comprehend the nature of the diverse social movements of the time.
- Analyse and infer the evolution of the idea of nationalism which led to the formation of nation states in Europe and elsewhere.
- Evaluate the reasons which led to the First World War.

Chapter 2 Nationalism in India

Learning outcome- The students will be able to

- Illustrate various facets of Nationalistic movements that ushered in the sense of Collective Belonging.
- Evaluate the effectiveness of the strategies applied by Gandhiji and other leaders in the movements organised by him.
- Summarise the effects of the First World War that triggered the two defining movements (Khilafat &Non- Cooperation Movement) in India

Chapter 3-. The Making of a Global World

Subtopic 1. The pre-modern world
Subtopic 2. 19th century 1815 -1914
Subtopic 3. The inter- war economy
Subtopic 4. Rebuilding of world economy: the post war era.

Inter disciplinary Project with chapter 7 of Geography: Lifelines of National Economy and chapter 4 of Economics: Globalisation and the Indian Economy

Refer Annexure III B

Learning outcome- The students will be able to

- Summarise the changes that transformed the world in different areas.
- Depict the global interconnectedness from the Pre-modern to the present day.
- Enumerate the destructive impact of colonialism on the livelihoods of colonised people.

Chapter 4-The Age of Industrialisation

Learning outcome- The students will be able to

- Enumerate economic, political, social features of Pre and Post Industrialization.
- Analyse and infer how the industrialization impacted colonies with specific focus on India

Chapter 5. Print culture and the Modern World

Learning Outcome- The students will be able to

- Enumerate the development of Print from its beginnings in East Asia to its expansion in Europe and India.
- Compare and contrast the old tradition of handwritten manuscripts versus print technology.
- Summarise the role of Print revolution and its impact

Geography: Contemporary India – II

Chapter 1- Resources and Development

Learning Outcome- The students will be able to

- Enumerates how the resources are interdependent, justify how planning is essential in judicious utilisation of resources and the need to develop them in India.
- Infer the rationale for development of resources.
- Analyse and evaluate data and information related to non-optimal land, utilization in India
- Suggest remedial measures for optimal utilization of underutilized resources

Chapter 2- Forest and Wildlife Resources

Learning Outcome- The students will be able to

- Examine the importance of conserving forests and wildlife and their interdependency in maintaining the ecology for the sustainable development of India.
- Analyse the role of grazing and wood cutting in the development and degradation
- Summarise the reasons for conservation of biodiversity under sustainable development.
- Discuss how developmental works, grazing wood cutting have impacted the forests
- Use art integration to summarise and present the reasons for conservation of biodiversity in India under sustainable development.

Chapter 3-Water Resources

Learning Outcome- The students will be able to

- Examine the reasons for conservation of water resource in India.
- Analyse and infer how the multipurpose projects are supporting the requirement of water.

Chapter 4- Agriculture

Learning Outcome

- Examine the crucial role played by agriculture in our economy and society.
- Analyse the challenges faced by the farming community in India.
- Identifies various aspects of agriculture, including crop production, types of farming etc.

Chapter 5- Minerals and Energy Resources

Learning Outcome- The students will be able to

- Enumerate the impact of manufacturing industries on the environment and develop strategies for sustainable development of the manufacturing sector.
- Differentiate between various types of manufacturing industries based on their input materials, processes, and end products, and analyse their significance in the Indian economy.
- Analyse the relation between the availability of raw material and location of the industry

Chapter 7- Life Lines of National Economy

Interdisciplinary project with chapter 3 of History: The making of a Global world and chapter 4 of Economics: Globalisation and the Indian Economy

Learning Outcome-Refer Annexure III-B

Political Science: Democratic Politics - II

Chapter 1- Power – sharing

Learning Outcome- The students will be able to

- Enumerate the need for power sharing in democracy.
- Analyse the challenges faced by countries like Belgium and Sri Lanka ensuring effective power sharing.
- Compare and contrast the power sharing of India with Sri Lanka and Belgium.
- Summarise the purpose of power sharing in preserving the unity and stability of a country

Chapter 2-Federalism

Learning Outcome- The students will be able to

- Infer how federalism is being practised in India.
- Analyse the policies and politics that has strengthened federalism in practice.

Chapter 3- Gender, Religion and Caste

Learning Outcome- The students will be able to

- Examine the role and differences of Gender, religion and Caste in practicing Democracy.
- Analyse that different expressions based on the differences, are healthy or otherwise in a democracy

Chapter 4- Political Parties

Learning Outcome- The students will be able to

- Understand the process of parties getting elected.
- Know the significance of the right to vote and exercise the duties as citizens of a nation.
- Examine the role, purpose and no. of Political Parties in Democracy.

Chapter 5- Outcomes of Democracy

Learning Outcome- The students will be able to

- Enumerates how the success of democracy depends on quality of government, economic well- being, inequality, social differences, conflict, freedom and dignity.

Economics: Understanding Economic Development

Chapter- 1. Development

Learning Outcome- The students will be able to

- Enumerate and examine the different processes involved in setting developmental Goals.
- Analyse and infer how the per capita income depicts the economic condition of the nation.

- Evaluate the development goals with reference to their efficacy, implemental strategies, relevance to current requirements of the nation.
- Compare the per capita income of some countries and infer reasons for the variance.
- Analyse the multiple perspectives on the need of development.

Chapter 2- Sectors of the Indian Economy

Learning Outcome- The students will be able to

- Analyse and infer how the economic activities in different sectors contribute to the overall growth and development of the Indian economy.
- Propose solutions to identified problems in different sectors based on their understanding.
- Summarise how the organised and unorganised sectors are providing employment
- Enumerate the role of the unorganised sector in impacting Per Capita Income currently and propose suggestive steps to reduce the unorganised sector for more productive contributions to GDP.
- Enumerate and infer the essential role of the Public and Private sectors

Chapter 3- Money and Credit

Learning Outcome- The students will be able to

- Enumerate how money plays as a medium exchange in all transactions of goods and services from ancient times to the present times.
- Analyse and infer various sources of Credit.
- Summarise the significance and role of self-help groups in the betterment of the economic condition of rural people/ women.

Chapter- 4. Globalisation and the Indian Economy

Subtopics: What is Globalisation?
Factors that have enabled Globalisation**.**

Interdisciplinary Project with chapter 3 of History: "The making of a Global World". And chapter 7 of Geography: "Lifelines of National Economy"

Subtopics:

i. Production across the countries
ii. World Trade Organisation
iii. The Struggle for a Fair Globalisation

Refer Annexure III-B

Learning Outcome- The students will be able to

- Enumerate the concept of globalisation and its definition, evolution, and impact on the global economy.
- Evaluate the key role of the key major drivers of globalisation and their role in shaping the global economic landscape in various countries.
- Comprehend the significance of role of G20 and its significance in the light of India's role.

5. Project work - Consumer Rights **OR** Social Issues **OR** Sustainable Development

Learning Outcome- Refer Annexure III

CLASS X (2025-26)
MAP WORK

<table>
<tr><th>Subject</th><th>Name of the Chapter</th><th>List of areas to be located/ labeled/ identified on the map</th></tr>
<tr><td>History</td><td>Nationalism in India</td><td>I. Congress sessions:
1920 Calcutta
1920 Nagpur
1927 Madras session
II. 3 Satyagraha movements:
Kheda
Champaran
Ahmedabad mill workers
III. Jallianwala Bagh
IV. Dandi March</td></tr>
<tr><td>Geography</td><td>Resources and Development</td><td>Identify Major Soil Types</td></tr>
<tr><td rowspan="3"></td><td>Water Resources</td><td>Locating and Labeling:<table><tr><td>Salal
Bhakra Nangal
Tehri
Rana Pratap Sagar</td><td>Sardar Sarovar
Hirakund
Nagarjun Sagar
Tungabhadra</td></tr></table></td></tr>
<tr><td>Agriculture</td><td>Identify:
Major areas of Rice and Wheat
Largest/Major producer states of Sugarcane, Tea, Coffee,
Rubber, Cotton and Jute</td></tr>
<tr><td>Minerals and Energy Resources</td><td>Identify:<table><tr><td>Iron Ore Mines
Mayurbhanj
Durg
Bailadila
Bellary
Kudremukh</td><td>Coal Mines
Raniganj
Bokaro
Talcher
Neyveli</td><td>Oil Fields
Digboi
Naharkatia
Mumbai High
Bassien
Kalol
Ankaleshwar</td></tr></table></td></tr>
<tr><td></td><td></td><td>Locate and label: Power Plants<table><tr><td>Thermal
Namrup
Singrauli
Ramagundam</td><td>Nuclear
Narora
Kakrapara
Tarapur
Kalpakkam</td></tr></table></td></tr>
</table>

<table>
<tr><td></td><td>Manufacturing Industries</td><td>• Manufacturing Industries (Locating and labeling only)
• Cotton textile Industries: a. Mumbai, b. Indore, c. Surat, d. Kanpur, e. Coimbatore
• Iron and Steel Plants: a. Durgapur, b. Bokaro, c. Jamshedpur, d. Bhilai, e. Vijayanagar, f. Salem
• Software technology Parks: a. Noida, b. Gandhi-nagar, c. Mumbai, d. Pune, e. Hyderabad, f. Bengaluru, g. Chennai,h. Thiruvananthapuram</td></tr>
<tr><td></td><td>Lifelines of National Economy</td><td>Locating and Labeling
a. Major Sea Ports<table><tr><td>• Kandla
• Mumbai
• Marmagao
• New Mangalore
• Kochi</td><td>• Tuticorin
• Chennai
• Visakhapatnam
• Paradip
• Haldia</td></tr></table>b. International Airports
• Amritsar (Raja Sansi-Sri Guru Ram Das ji)
• Delhi (Indira Gandhi)
• Mumbai (Chhatrapati Shivaji)
• Chennai (Meenambakkam)
• Kolkata (Netaji Subhash Chandra Bose)
• Hyderabad (Rajiv Gandhi)</td></tr>
</table>

Note

1. Items of Locating and Labelling may also be given for Identification.
2. The Maps available in the website of Govt. of India may be used.

CLASS X
QUESTION PAPER DESIGN

Subject Wise Weightage

Subject	Syllabus	Marks (80)	Percentage
History	• The Rise of Nationalism in Europe. • Nationalism in India: • The Making of a Global World Sub topics 1 to 1.3 • Print Culture and the Modern World • Map pointing	18+2	25%
Political Science	• Power – sharing • Federalism • Gender, Religion and Caste • Political Parties • Outcomes of Democracy	20	25%
Geography	• Resources and Development • Forest and Wildlife Resources • Water Resources • Agriculture • Mineral& Energy resources • Manufacturing industries. • Lifelines of National Economy (map pointing) • Map pointing	17+3	25%
Economics	• Development • Sectors of the Indian Economy • Money and Credit • Globalisation and The Indian Economy Sub topics: ➢ What is Globalisation? ➢ Factors that have enabled Globalisation	20	25%

Weightage to Type of Questions

Type of Questions	Marks (80)	Percentage
1 Mark- MCQs (20x1) (Inclusive Of Assertion, Reason, Differentiation & Stem)	20	25%
2 Marks- Long Answer Questions (4x2) (Knowledge, Understanding, Application, Analysis, Evaluation, Synthesis & Create)	8	10%
3 Marks- Long Answer Questions (5x3) (Knowledge, Understanding, Application, Analysis, Evaluation, Synthesis & Create)	15	18.75%
4 Marks- Case Study Questions (3x4) (Knowledge, Understanding, Application, Analysis, Evaluation, Synthesis & Create)	12	15%
5 Mark- Long Answer Questions (4x5) (Knowledge, Understanding, Application, Analysis, Evaluation, Synthesis & Create)	20	25%
Map Pointing	5	6.25%

Weightage to Competency Levels

Sr. No.	Competencies	Marks (80)	Percentage
1	**Remembering and Understanding**: Exhibiting memory of previously learned material by recalling facts, terms, basic concepts, and answers; Demonstrating understanding of facts and ideas by organizing, translating, interpreting, giving descriptions and stating main ideas.	24	30%
2	**Applying**: Solving problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	11	13.25%
3	**Analysing, Evaluating and Creating**: Examining and breaking information into parts by identifying motives or causes; Making inferences and finding evidence to support generalizations; Presenting and defending opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. Compiling information together in a different way by combining elements in a new pattern or proposing alternative solutions.	40	50%
4	Map Skill	5	6.25%
	Total	**80**	**100%**

CLASS X (2025-26)

GUIDELINES FOR INTERNAL ASSESSMENT: 20 MARKS

Type of Assessment	Description	Marks
Periodic Assessment	Pen Paper Test.	**5**
Multiple Assessment	Quiz, debate, role play, viva, group discussion, visual expression, interactive bulletin boards, gallery walks, exit cards, concept maps, peer assessment, Self-assessment etc. through Interdisciplinary project	**5**
Subject Enrichment Activity	Project Work on Consumer Rights OR Social Issues OR Sustainable Development (Interdisciplinary)	**5**
Portfolio	Classwork, Work done (activities/ assignments) reflections, narrations, journals, etc. Achievements of the student in the subject throughout the year Participation of the student in different activities like heritage India quiz	**5**

CLASS X
PRESCRIBED TEXTBOOKS

S.No.	Subject	Name of the Book	Publisher
1	History	India and the Contemporary World-II	NCERT
2	Political Science	Democratic Politics-II	NCERT
3	Geography	Contemporary India-II	NCERT
4	Economics	Understanding Economic Development	NCERT
5	Disaster Management	Together, towards a safer India- Part III	CBSE

Annexure III-A

Class X - Project **10 periods**	**5 marks**
Every student must undertake one project on … **Consumer Awareness** OR **Social Issues** OR **Sustainable Development** **Objectives:** • The objective of the project work is to help students gain an insight and pragmatic understanding of the theme and see all the Social Science disciplines from an interdisciplinary perspective. • It should also help in enhancing the Life Skills of the students. • Students are expected to apply the Social Science concepts that they have learnt over the years to prepare the project report • If required, students may go out for collecting data and use different primary and secondary resources to prepare the project. • If possible, various forms of art may be integrated in the project work.	The students will develop the following competencies: • Collaboration • Use analytical skills. • Evaluate the situations during disasters. • Synthesize the information. • Find creative solutions. • Strategies the order of solutions • Use right communication skills

Guidelines:

The distribution of marks over different rubrics relating to Project Work is as follows:

S.no	Rubrics	Marks
a	Content accuracy and originality	2
b	Competencies exhibited and Presentation	2
c	Viva-Voce	1

The project carried out by the students should subsequently be shared among themselves through interactive sessions such as exhibitions, panel discussions, etc.

1. All documents pertaining to assessment under this activity should be meticulously maintained by the schools.
2. A Summary Report should be prepared highlighting:
   - objectives realized through individual work and group interactions.
   - calendar of activities.
   - innovative ideas generated in the process
   - list of questions asked in viva voce.
3. It is to be noted here by all the teachers and students that the projects and models prepared should be made from eco-friendly products without incurring too much expenditure.
4. The Project Report can be handwritten or digital.
5. The Project Work needs to enhance cognitive, affective and psychomotor skills of the learners. It will include self-assessment and peer assessment, and progress of the child in project-based and inquiry-based learning, art integrated activities, experiments, models, quizzes, role plays, group work, portfolios, etc., along with teacher assessment. (NEP- 2020)

6. Must be done at school only as specific periods are allocated for project work.

7. The Project work can culminate in the form of Power Point Presentation/ Exhibition/ Skit/ albums/files/song and dance or culture show/story telling/debate/panel discussion, paper presentation and whichever is suitable to Visually Impaired Candidates.

8. Records pertaining to projects (internal assessment) of the students will be maintained for a period of three months from the date of declaration of result for verification at the discretion of the Board. Subjudice cases, if any or those involving RTI / Grievances may however be retained beyond three months.

B

Interdisciplinary Project: Class X

Subject and Chapter No.	Name of the Chapter	Suggested Teaching Learning Process	Learning Outcomes with Specific Competencies	Time Schedule For Completion
History Chapter III Geography Chapter 7	Making of a Global World Lifelines of National Economy	The teachers may use the following pedagogies in facilitating the students in completion of Interdisciplinary Project. 1) Constructivism 2) Inquiry based learning 3) Cooperative learning 4) Learning station 5) Collaborative learning 6) Videos/ Visuals/ documentaries/ movie clippings 7) Carousel technique 8) Art integrated learning Group Discussions Multiple Assessment:Ex. Surveys/ Interviews/ Research work/ Observation/ Story based	➢ Analyse the implication of globalisation for local economies. ➢ Discuss how globalisation is experienced differently by different social groups. Enumerates how transportation works as a lifeline of the economy. ➢ Analyse and infer the impact of roadways and railways on the national economy. ➢ Analyses and infers the challenges faced by the roadways and railway sector in India	The schools do IDP between the months of April and September at the School under the guidance of a teacher. (Carryover of project to home must be strictly avoided)
Economics Chapter 4	Globalisation on and the Indian Economy	Presentation/ Art integration/ Quiz/ Debate/ role play/ viva, /group discussion, /visual expression/ interactive bulletin	➢ Integrate various dimensions of globalisation in terms of cultural / political/ social /economical aspects)	

		boards/ gallery walks/ exit cards/ concept maps/ peer assessment/ art integration /Self - assessment/integration of technology etc.	➢ Appraise the evolution of Globalisation and the global trends ➢ Investigate the factors that facilitated the growth on MNC 's	

Guidelines:

- It involves combining 2 or more disciplines into one activity-more coherent and integrated. The generally recognized disciplines are economics, History, Geography, Political Science, a sample plan has been enclosed) Kindly access the link given below
- Methodology (A sample interdisciplinary project plan Link has been provided to get an insight about IDP.
- Topic: The Making of a Global World, Globalisation and Lifelines of Economy

  https://docs.google.com/document/d/1dIwwFeaSrExJHMtkzcEuoq3ehh-7FtHM/edit

Plan of the project:
A suggestive 10 days' plan given below which you may follow, or you can create on your own, based on the templates provided below

Process:
Initial collaboration among students to arrange their roles, areas of integration, area of investigation and analysis, roles of students

Class X: 10-day Suggestive plan for Interdisciplinary Project
Day 1: Introduction to the Interdisciplinary Project and Setting the Context:
Brief overview of the project and its objectives to be given by the teachers. History teacher to Introduce the historical context of World War II and its aftermath through inquiry methods. Make the students to Group discuss the impact of World War II on the global economy. Teacher to refer annexure III for rubrics) **Day 2: The Great Depression:** Students to watch a video from the link, https://www.youtube.com/watch?v=62DxELjuRec and https://www.youtube.com/watch?v=gqx2E5qIV9s and discuss the causes and consequences of the Great Depression and the role of mass production and consumption in the Great Depression. Present a group PPT /report on consequences of the Great Depression on the global economy. **Day 3: India and the Great Depression:** Students to collect material related to India's economic condition during the Great Depression and relate it to the present economic condition of India and US. Students may collect information through a visit to the library. As a group activity they need to present a collage of their findings. (Refer Annexure V for

Rubrics)

Day 4: Rebuilding the World Economy and Interlinking Production across countries

- Teachers to use Jigsaw method to make the students to sit in groups and to give each group a part of the handout with information about process taken to rebuild economy and how the production across countries got interlinked. Make the groups to compile the information by moving from group to group.
- Make them discuss the post-war recovery efforts and their impact on the global economy
- Study the role of the Bretton Woods Institutions in rebuilding the world economy and present their learnings through Art Integrated Project. Refer Annexure V for rubrics.

Day 5: The Early Post-War Years: The role of roadways, railways, waterways and airways in building the national economy

- The teacher distributes the Handout 1 given below to the groups and asks them to find answers to the questions posed at the end of Hand out and present it in groups using Café conversations mode. Refer Annexure III for rubrics.
- Study the challenges faced by the world in the early post-war years

Day 6: Post war settlement and Bretton Woods institutions

- Make the students read the material available online/in library and debate the impact of Bretton Woods institutions in the post war economy. Refer Annexure V for Rubrics.

Day 7: Decolonization and Independence - The Role of World Trade Organization:

- The students will read the handout 2 given below and present a role play of the support rendered by the World Trade Organisation in building new nations. Refer Annexure V for rubrics
- Introduction to the World Trade Organization
- Study the role of the WTO in promoting fair trade practices
- Discuss the efforts made towards decolonization and independence of nations

Day 8: End of Bretton Woods and the Beginning of Globalisation:

- The students will read material given in the link https://www.imf.org/external/about/histend.htm#:~:text=End%20of%20Bretton%20Woods%20system,-The%20system%20dissolved&text=In%20August%201971%2C%20U.S.%20President,the%20breakdown%20of%20the%20system.
- Organise an interview with a financial expert/economist/ lecturer/professor. Based on the information they gathered, the students can submit a report on the findings.
- Discuss the reasons for the end of the Bretton Woods system

Day 9: Impact of Globalization in India and role of waterways and airways https://www.jagranjosh.com/general-knowledge/new-economic-policy-of-1991-objectives-features-and-impacts-1448348633-1

- The students will read the material given in the above link and design a report on what would have happened to India if this stand wasn't taken and present it as a radio talk show. They will link the role of waterways and airways in the achievement of India in globalisation.
- Study the impact of globalisation on the Indian economy
- Discuss the challenges faced by India in the process of globalisation

Day 10. Final presentation

Conclude the interdisciplinary project and summarize the key takeaways.

CBSE | DEPARTMENT OF SKILL EDUCATION

ARTIFICIAL INTELLIGENCE (SUBJECT CODE 417) CLASS – X (SESSION 2025-2026)

Total Marks: 100 (Theory-50 + Practical-50)

	UNITS	NO. OF HOURS for Theory and Practical		MAX. MARKS for Theory and Practical
PART A	**Employability Skills**			
	Unit 1: Communication Skills-II	10		2
	Unit 2: Self-Management Skills-II	10		2
	Unit 3: ICT Skills-II	10		2
	Unit 4: Entrepreneurial Skills-II	10		2
	Unit 5: Green Skills-II	10		2
	Total	**50**		**10**
PART B	**Subject Specific Skills**	**Theory (hours)**	**Practical (hours)**	**Marks**
	Unit 1: Revisiting AI Project Cycle & Ethical Frameworks for AI	11	4	7
	Unit 2: Advanced Concepts of Modeling in AI	18	7	11
	Unit 3: Evaluating Models	21	4	10
	Unit 4: Statistical Data	–	28	–
	Unit 5: Computer Vision	10	20	4
	Unit 6: Natural Language Processing	20	7	8
	Unit 7: Advance Python		10	–
	Total	**160**		**40**
PART C	**Practical & Project Work:**			**Marks**
	Practical File with minimum 15 Programs			15
	Practical Examination ● Unit 4: Statistical Data ● Unit 5: Computer Vision ● Unit 6: Natural Language Processing ● Unit 7: Advance Python			15
	Viva Voce			5
	Project Work / Field Visit / Student Portfolio (Anyone to be done)			10
	Viva Voce (related to project work)			5
	Total			**50**
	GRAND TOTAL	**210**		**100**

DETAILED CURRICULUM/TOPICS FOR CLASS X

Part-A: EMPLOYABILITY SKILLS

S. No.	Units	Duration in Hours
1.	Unit 1: Communication Skills-II	10
2.	Unit 2: Self-management Skills-II	10
3.	Unit 3: Information and Communication Technology Skills-II	10
4.	Unit 4: Entrepreneurial Skills-II	10
5.	Unit 5: Green Skills-II	10
	TOTAL	**50**

Note: The detailed curriculum/ topics to be covered under Part A: Employability Skills can be downloaded from CBSE website

Part-B – SUBJECT SPECIFIC SKILLS

- Unit 1: Revisiting AI Project Cycle & Ethical Frameworks for AI
- Unit 2: Advanced Concepts of Modeling in AI
- Unit 3: Evaluating Models
- Unit 4: Statistical Data
- Unit 5: Computer Vision
- Unit 6: Natural Language Processing
- Unit 7: Advance Python

UNIT 1: Revisiting AI Project Cycle & Ethical Frameworks for AI

SUB-UNIT	LEARNING OUTCOMES	ACTIVITY/ PRACTICAL
AI Project Cycle	Understand the stages of the AI Project Cycle.	**Session:** Revisiting AI Project Cycle
Introduction to AI Domains	Understand the concept of Artificial Intelligence (AI) domains and the illustrations of practical applications within each AI domain.	**Session**: The three domains of AI and their applications.

SUB-UNIT	LEARNING OUTCOMES	ACTIVITY/ PRACTICAL
Ethical Frameworks of AI	Learn about the ethical framework for AI and its category. Explore Bioethics, a popular framework that is used in the healthcare industry.	**Session**: Frameworks, Ethical Framework and need of Ethical Frameworks for AI. Activity: My Goodness https://www.my-goodness.net/
		Session: Types of Ethical Frameworks.
		Session: Bioethics and a case study in bioethics.

UNIT 2: Advance Concepts of Modeling in AI

SUB-UNIT	LEARNING OUTCOMES	SESSION/ ACTIVITY/ PRACTICAL
Revisiting AI, ML, DL	Understand AI, ML and DL	**Session:** Differentiate between AI, ML, and DL **Session:** Common terminologies used with data
Modeling	• Familiarize with supervised, unsupervised and reinforcement learning based approach • Understand subcategories of Supervised, Unsupervised and deep learning models	**Session:** Types of AI Models: Rule Based Approach, Learning Based Approach **Session:** Categories of Machine learning based models: Supervised Learning (https://teachablemachine.withgoogle.com/), Unsupervised Learning (https://experiments.withgoogle.com/ai/drum-machine/view/), Reinforcement Learning **Session:** Subcategories of Supervised Learning Model: Classification Model, Regression Model **Session:** Subcategories of Unsupervised Learning Model: Clustering, Association **Session:** Subcategories of Deep Learning: Artificial Neural networks (ANN), Convolutional Neural Network (CNN)
Artificial Neural Networks	• Understand Neural Networks • Understand how AI makes a decision	**Session:** What is Neural Network? **Session:** How does AI make a Decision? **Activity:** Human Neural Network – The Game **Suggested Neural Network Activity:** https://playground.tensorflow.org/

UNIT 3: Evaluating Models

SUB-UNIT	LEARNING OUTCOMES	SESSION/ ACTIVITY/ PRACTICAL
Importance of Model Evaluation	Understand the role of evaluation in the development and implementation of AI systems.	**Session:** What is evaluation? **Session:** Need of model evaluation

Splitting the training set data for Evaluation	Understand Train-test split method for evaluating the performance of a machine learning algorithm	**Session:** Train-test split
Accuracy and Error	Understand Accuracy and Error for effectively evaluating and improving AI models	**Session:** Accuracy **Session:** Error **Activity:** Find the accuracy of the AI model
Evaluation metrics for classification	Learn about the different types of evaluation techniques in AI, such as Accuracy, Precision, Recall and F1 Score, and their significance.	**Session:** What is Classification? **Session:** Classification metrics **Activity:** Build the confusion matrix from scratch **Activity:** Calculate the accuracy of the classifier model **Activity:** Decide the appropriate metric to evaluate the AI model
Ethical concerns around model evaluation	Understand ethical concerns around model evaluation	**Session:** Bias, Transparency, Accuracy

UNIT 4: Statistical Data (To be assessed through Practicals)

SUB-UNIT	LEARNING OUTCOMES	SESSION/ ACTIVITY/ PRACTICAL
Introduction & No code AI tool	Define the concept of Statistical Data and understand its applications in various fields. Define No-Code and Low-Code AI. Identify the differences between Code and No-Code AI concerning Statistical Data.	**Session: No code AI tool** •Introduction to Data Science & its applications •Meaning of No-Code AI • No-Code and Low-Code. • Some no-code tools **Orange Data Mining Tool:** **https://orangedatamining.com/download/**
Statistical Data: Use Case Walk through	Relate AI project stages to the stages of No-Code AI projects Able to use no-code tool Orange Data mining. To perform data exploration, modeling and evaluation with Orange data mining.	**Session** •Important concepts in Statistics. • Orange data mining • AI project cycle in Orange data mining (Palmer penguins case study) **Activity:** MS Excel for Statistical Analysis. Link:**https://docs.google.com/spreadsheets/d/1f5G-JXyP7EV2fy1hax47YVaH5gyq8KZy/edit?usp=drive_link&ouid=109928090180926267402&rtpof=true&sd=true** Case study using Orange data mining (Palmer Penguins). Link: https://drive.google.com/drive/u/0/folders/1fmcRVb-ilTyUhmUv4DWT1BFsaCoQ2BmF

UNIT 5: Computer Vision (To be assessed through Theory)

SUB-UNIT	LEARNING OUTCOMES	SESSION/ ACTIVITY/ PRACTICAL
Introduction	Define the concept of Computer Vision and understand its applications in various fields.	**Session:** Introduction to Computer Vision
		Session: Applications of CV
Concepts of Computer Vision	Understand the basic concepts of image representation, feature extraction, object detection, and segmentation.	**Session:** Understanding CV Concepts ● Computer Vision Tasks ● Basics of Images-Pixel, Resolution, Pixel value ● Grayscale and RGB images
		Activities: ● Game- Emoji Scavenger Hunt https://emojiscavengerhunt.withgoogle.com/ ● RGB Calculator: https://www.w3schools.com/colors/colors_rgb.asp ● Create your own pixel art: www.piskelapp.com ● Create your own convolutions: http://setosa.io/ev/image-kernels/

UNIT 5: Computer Vision (To be assessed through Practicals)

SUB-UNIT	LEARNING OUTCOMES	SESSION/ ACTIVITY/ PRACTICAL
No-Code AI Tools	To demonstrate proficiency in using no-code AI tools for computer vision projects. To deploy models, fine-tune parameters, and interpret results. Skills acquired include data preprocessing, model selection, and project deployment.	**Introduction to Lobe: https://www.lobe.ai/** **Teachable Machine: https://teachablemachine.withgoogle.com/** • **Activity:** Build a Smart Sorter **Orange Data Mining Tool: https://orangedatamining.com/download/** • **Activity:** Build a real-world Classification Model: Coral Bleaching (Use Case Walkthrough) • Link to the steps involved in project development and dataset: https://drive.google.com/drive/folders/1ppJ4d-8yOFJ2G22rHHpjNrK0ejdIAe5Q?usp=sharing
Image Features & Convolution Operator	Apply the convolution operator to process images and extract useful features.	**Session:** Understanding Convolution operator
		Activity: Convolution Operator
Convolution Neural Network	Understand the basic architecture of a CNN and its applications in computer vision and image recognition.	**Session:** Introduction to CNN
		Session: Understanding CNN ● Kernel ● Layers of CNN
		Activity: Testing CNN

UNIT 6: Natural Language Processing (To be assessed through Theory)

SUB-UNIT	LEARNING OUTCOMES	SESSION/ ACTIVITY/ PRACTICAL
Introduction	Comprehend the complexities of natural languages. and elaborate on the need for NLP techniques for machines to understand various natural languages effectively.	**Session:** Features of natural languages. **Session:** Introduction to Natural Language Processing
Applications of Natural Language Processing	Explore the various applications of NLP in everyday life, such as , voice assistants, auto generated captions, language translation, sentiment analysis, text classification and keyword extraction.	**Session:** Various real-life applications of NLP **Activity:** Keyword Extraction https://cloud.google.com/natural-language
Stages of Natural Language Processing (NLP)	Understand the concepts like lexicon, syntax, semantics, and logical analysis of input text.	**Session:** Explore the various stages of NLP that involve in understanding and processing human language.
Chatbots	Understand the concept of chatbot and the differences between smartbots and script bots.	**Activity:** Play with chatbots Elizabot - https://www.masswerk.at/elizabot/ Mitsuki - https://www.kuki.ai/ Cleverbot - https://www.cleverbot.com/ Singtel - https://www.singtel.com/personal/support **Session:** Script Bot V/s Smart Bot
Concepts of Natural Language Processing: Text Processing	Learn about the Text Normalization technique used in NLP and the popular NLP model - Bag-of-Words	**Session: Text Processing** • Text Normalisation • Bag of Words **Hands-on:** Text processing • Data Processing • Bag of Words • TFIDF

UNIT 6: Natural Language Processing (To be assessed through Practicals)

SUB-UNIT	LEARNING OUTCOMES	SESSION/ ACTIVITY/ PRACTICAL
Natural Language Processing: Use Case Walkthrough	Explore the sentiment analysis process using real-life datasets with the Orange Data Mining tool.	**Session:** Examples of Code and No-code NLP Tools **Session:** Applications of NLP- Introduction to Sentiment Analysis
		Hands-on: Case Walkthrough – Steps involved in project development Link to steps and dataset: https://drive.google.com/drive/u/2/folders/1geFLXxV5890kfcakMfEg_KsH1LPcS_Iz

UNIT 7: ADVANCE PYTHON (To be assessed through Practicals)

SUB-UNIT	LEARNING OUTCOMES	SESSION/ ACTIVITY/ PRACTICAL
Recap	Understand to work with Jupyter Notebook, creating virtual environments, installing Python Packages.	**Session:** Jupyter Notebook
	Able to write basic Python programs using fundamental concepts such as variables, data types, operators, and control structures.	**Session:** Introduction to Python
	Able to use Python built-in functions and libraries.	**Session:** Python Basics

PART-C: PRACTICAL & PROJECT WORK

Practical Work:

Suggested Programs List	• Write a program to add the elements of the two lists. • Write a program to calculate mean, median and mode using Numpy • Write a program to display line chart from (2,5) to (9,10). • Write a program to display a scatter chart for the following points (2,5), (9,10),(8,3),(5,7),(6,18). • Read the csv file saved in your system and display 10 rows. • Read csv file saved in your system and display its information • Write a program to read an image and display using Python • Write a program to read an image and identify its shape using Python
Important Links	Link to AI Activities & steps to AI project development considering real life problem statement along with the required dataset https://docs.google.com/spreadsheets/d/1ZQCTT8RM-l7QfeTzH0n-5wJLBAoiXu7TFM0Pcp31cX0/edit?usp=sharing
Project Work / Field Visit / Student Portfolio *** relate it to Sustainable Development Goals** **Suggested Projects/ Field Visit / Portfolio (any one activity to be one)**	
Sample Projects	AI Project Development Using 1. Statistical Data for AI: Prediction of palmer penguin species 2. Computer Vision: Early detection of coral bleaching 3. Natural Language Processing: Sentiment Analysis
Field Work	Students' participation in the following- • AI for Youth Bootcamp • AI Fests/ Exhibition • Participation in any AI training sessions • Virtual tours of companies using AI to get acquainted with real-life usage
Student Portfolio (to be continued from class IX)	• Maintaining a record of all AI activities • Hackathons • Competitions (CBSE/Inter School) Note: Portfolio should contain minimum 5 activities

ENGLISH QUESTION BANK CLASS -X

LETTER WRITING

1. Letter to the Editor – 2 Questions

Q1. You are *Aman Sharma*, a resident of 45, Green Park, New Delhi. Write a letter to the Editor of *The Times of India*, New Delhi, highlighting the problem of increasing road accidents in your city and suggesting some measures to control them.

Q2. You are *Nisha Verma*, a student of Class X, St. Mary's School, Kanpur. Write a letter to the Editor of *The Hindustan Times*, Kanpur, expressing your concern about the rising cases of cyberbullying among teenagers and suggesting preventive steps.

2. Letter of Complaint – 3 Questions

Q3. You are *Rahul Mehta*, 56, Civil Lines, Agra. Write a letter to the Manager of M/s Hitech Electronics, complaining about the defective washing machine you purchased last month and requesting an early replacement.

Q4. You are *Priya Kapoor*, 12, Sector 4, Rohini, Delhi. Write a letter to the Station Master, Northern Railway, Delhi Junction, complaining about the poor maintenance and lack of cleanliness in trains and at the platforms.

Q5. You are *Amit Kumar*, Hostel Warden of Bright Future Public School, Ranchi. Write a letter to the Sales Manager of Bharat Furniture, Ranchi, complaining about the delay in delivery of hostel beds and cupboards ordered two months ago.

3. Letter of Enquiry – 2 Questions

Q6. You are *Anjali Gupta*, 17, Ashok Nagar, Jaipur. Write a letter to the Manager, Adventure Sports Club, Manali, enquiring about the details of a 5-day trekking camp you and your friends wish to join during the summer vacation.

Q7. You are *Ravi Sharma*, 21, Model Town, Ludhiana. Write a letter to the Principal, National Institute of Foreign Languages, New Delhi, seeking information about the French language evening course, including duration, fees, and eligibility.

4. Letter for Placing an Order – 3 Questions

Q8. You are *Suresh Kumar*, Librarian of Green Valley School, Shimla. Write a letter to M/s National Book Depot, Chandigarh, placing an order for English and Science textbooks for Class 9 and 10, mentioning titles, authors, and quantity.

Q9. You are *Rita Malhotra*, owner of Fashion Trends Boutique, Lucknow. Write a letter to M/s Elegant Fabrics, Delhi, placing an order for different types of silk and cotton fabrics for your store.

Q10. You are *Arun Verma*, Sports Secretary of Sunrise Public School, Dehradun. Write a letter to M/s Champion Sports Co., Delhi, placing an order for sports equipment for the school annual sports meet.

FOOT PRINTS WITHOUT FEET

Q1. If, somehow you discovered how to become invisible, how would you use that opportunity?

Q2. Griffin was not a true scientist as he misused his scientific discovery. Illustrate this point by giving two incidents from the story.

Q3. What impression do you form of Griffin after reading the lesson, "Footprint, without Feet"?

Q4. "Griffin was rather a lawless person". Comment on it.

Q5. How did the invisible man first become visible?

Q6. What other extraordinary things happen at the inn?

Q7. What curious episode occurs in the study?

Q8. Obedience, interest and love for subject can turn a child to become a great personality one day. Refer to the story of Ebright who was loved by his mother so much, fulfills his desire and becomes a great Scientist. Write about the statement expressing your views.

Q9. How did Ebright show the science that he would do amazing things when he would grow up imagine you are Ebright what would you do?

Q10. A mother can make her child what he /she wishes to become in life keeping in mind the role of Ebright Mother. Explain.

Q11. Mrs Loisel led such a life which is inspirational for women as well as millions of people. What would you like to say about this statement?

Q12. Mr Loisel proved himself a very good husband. He always tried to help and please his wife and tried to convince her in all possible manners. Discuss.

Q13. Never be over smart or over confident; lead your life as you can. We should not try to compete with the higher people. Comment.

Q14. People should always live within their means. Aspirations have no limits but one should never forget the ground realities. Elaborate on the basis of chapter-"The Necklace".

Q15.The course of Loisel's life changed due to the necklace. Comment.

Q16. Mme Loisel's disposition invites her doom. Comment in the context of the text you have read.

Q17. Mme Forestier proved to be a true friend. Elucidate.

Q18. The story "The Necklace" teaches us many lessons which form the crux of human values. Discuss.

Q19 "Dowry is a negation of a girl's dignity" suggest some measures that can be adopted to eradicate this evil from our society?

Q20 "The teacher can change the life of any person through education" Justify this statement in the light of the story Bholi.

Q21. Bholi has multiple handicaps- she has pockmarks, she stammers. How can we change the social attitudes towards the differently abled?

Q22. “Dowry is a negation of the girl’s dignity”. Discuss with reference to the story “Bholi”.

Q23. Bholi chose a dignified life of service rather than surrendering herself to a greedy old man for the rest of her life. Education provides the required stimulus to overcome one’s personal barriers. Explain the role of education in shaping the life of a child with respect to the lesson “Bholi”.

Q24. Put the fear out of your heart and you will be able to speak like anyone else”. These words of encouragement from the teacher highlight the change in social attitude and encouragement can help a child like Bholi to become confident and face the world bravely. Taking help from the lesson “Bholi” write how the social attitude towards Bholi made her an introvert. What should be done to help such children to face the world bravely?

Q25.The chapter “Bholi” highlights the discrimination against the girl child. Analyse.

Q26. Why did Bholi at first agree to an unequal match? Why did she later reject the marriage? What does this tells us about her?

FIRST FLIGHT

Q1. Comment on the significance of bread and a bread baker in a traditional Goan village?

Q2. The people of Coorg have a tradition of courage and bravery. How has it been recognized in modem India?

Q3. What details do you gather about tea from the lesson, ‘Tea from Assam’?

Q4.In such a fast moving world when we hear so many incidents happening with people, do you think Valli did right by not telling her mother about the bus journey?

Q5. The people and surroundings are a great book to learn. Valli in the lesson ‘Madam Rides the Bus’ learns a lot from others. Mention the traits of her character which help her to learn from her surroundings.

Q6. Age is not a barrier when it comes to doing something different and great. Which characteristics of Valli help her achieve the wonder of visiting the town at such a tender age?

Q7. How do you usually understand the idea of selfishness? Do you agree with Kisa Gotami that she was ‘selfish’ on her grief? Is it natural for people to be selfish at times?

Q8. The Buddha said, ‘The world is afflicted with death and decay, and therefore the wise do not grieve, knowing the terms of the world.’ Do you think the statement is appropriate even for today’s life? Write your views in the context of the above statement

Q9. Life is full of trials and tribulations. Kisa Gotami also passes through a period of grief in her life. How does she behave in those circumstances? What lesson does a reader learn from the story of her life? Give any two points how you would like to act in the midst of adverse circumstances.

Q10. Anton Chekov has used humour and exaggeration in the play to comment on courtship in his times. Illustrate with examples from the lesson, “The Proposal”. Also mention the values, you think, any healthy relationship requires.

OR

The principle ‘forgive and forget’ helps a lot is maintaining cordial relations with our neighbours. Do you think Chubukov conveys this message in the play “The Proposal’?

Q11. Is Natalaya really a lovesick cat as called by her father? If it is so, why does she quarrel with Lomov?

Q12. Justify the title ‘The Proposal’.

Q13. Neighbours must have a cordial relationship which Lomov and Natalya do not have. Describe the first fight between them.

Q14. Give a character sketch of Lomov.

Q15.Descibe the incidents of humour in the play, ’The Proposal’

कक्षा - 10

विषय - हिंदी

प्रश्न कोश

<u>व्यावहारिक व्याकरण आधारित प्रश्न</u> (16 अंक)

1. रचना के आधार पर वाक्य कितने प्रकार के होते हैं? नाम लिखो|

   a) निम्नलिखित वाक्यों को ध्यानपूर्वक पढ़िए और रचना के आधार पर उनका भेद लिखिए

   - प्रातः जल्दी उठो और एक घंटे नियमित रूप से व्यायाम करो।
   - मरीज दवाएँ लेने अस्पताल गया।
   - अध्यापक आए और कक्षा में शोर बंद हो गया।
   - परिश्रमी मजदूरों को सभी काम पर बुलाते हैं।
   - जो लोग धनवान होते हैं, उन्हें गरीबों की मदद करनी चाहिए।

   b) निम्नलिखित वाक्यों को निर्देशित वाक्य में बदलिए |

   - यही वह छात्र है जिसने नाटक में अध्यापक की भूमिका निभाई। (सरल वाक्य)
   - पुलकित परिश्रमी है इसलिए सब उसे प्यार करते हैं। (सरल वाक्य)
   - शहर जाने पर श्यामू मलेरिया से पीड़ित हो गया। । (संयुक्त वाक्य)
   - मोबाइल फ़ोन झपटने का अपराधी होने से उसे सजा हुई। (संयुक्त वाक्य)
   - दुकान पर सजी मिठाइयाँ देखकर बच्चे के मुँह में पानी आ गया।(मिश्र वाक्य)
   - निराला जी द्वारा रचित कविता सभी को पसंद आई। (मिश्र वाक्य)

2. वाच्य कितने प्रकार के होते हैं ? नाम लिखो और उनको परिभाषित करो |

   a) निम्नलिखित वाक्यों के वाच्य का नाम लिखिए|

   - रुक्मिणी से यह सामान नहीं उठाया जाता।
   - छात्राएँ रात-रात भर पढ़ाई करती रही।
   - वह रामलीला देख रहा है।
   - तन्वी रात भर सो न सकी।
   - अक्षर से एक भी गेंद नहीं फेंकी गई।

   b) निम्नलिखित वाक्यों में वाच्य परिवर्तन कीजिए –

   - यह मकान दादाजी ने बनवाया है। (कर्म वाच्य)
   - वह दौड़ नहीं सकता। (भाव वाच्य)
   - अध्यापक द्वारा विद्यार्थी को पढ़ाया गया। (कर्तृ वाच्य)
   - राष्ट्रपति ने इस भवन का उद्घाटन किया। (कर्म वाच्य)

3. निम्न अलंकारो को परिभाषित करो तथा उनके दो दो उदाहरण लिखो |

उपमा, रूपक, उत्प्रेक्षा, अतिशयोक्ति तथा मानवीकरण |

4. नीचे दिए गये वाक्यों में रेखांकित पदों का पद परिचय स्पष्ट करो |

- <u>मधुकर</u> <u>यहाँ</u> पिछले साल <u>रहता था</u>।
- <u>वह</u> दौड़कर <u>विद्यालय</u> <u>गया</u>।
- <u>बाग</u> में <u>कुछ</u> लोग <u>बैठे थे।</u>
- <u>मैं</u> <u>आपको</u> <u>कुछ</u> रुपये दूंगा।
- <u>वीरों</u> की <u>सदा</u> <u>जीत होती है।</u>

पाठ्य पुस्तक और पूरक पाठ्य पुस्तक आधारित कुछ महवपूर्ण प्रश्न (30 अंक)

काव्य खंड (11 अंक)

सूरदास के पद

- गोपियों द्वारा उद्धव को भाग्यवान कहने में क्या व्यंग्य निहित है?
- गोपियों ने किन-किन उदाहरणों के माध्यम से उद्धव को उलाहने दिए हैं?
- उद्धव द्वारा दिए गए योग के संदेश ने गोपियों की विरहाग्नि में घी का काम कैसे किया?
- गोपियों के अनुसार राजा का धर्म क्या होना चाहिए?
- गोपियों ने उधव से योग की शिक्षा कैसे लोगों को देने की बात कही है?

राम-लक्ष्मण-परशुराम संवाद

- लक्ष्मण ने वीर योद्धा की क्या-क्या विशेषताएँ बताईं ?
- परशुराम के क्रोध करने पर लक्ष्मण ने धनुष के टूट जाने के लिए कौन-कौन से तर्क दिए?

आत्मकथ्य

- कवि आत्मकथा लिखने से क्यों बचना चाहता है?
- आत्मकथा सुनाने के संदर्भ में अभी समय भी नहीं' कवि ऐसा क्यों कहता है?
- स्मृति को 'पाथेय' बनाने से कवि का क्या आशय है?

उत्साह

- कवि बादल से फुहार, रिमझिम या बरसने के स्थान पर 'गरजने के लिए कहता है, क्यों?
- कविता का शीर्षक उत्साह क्यों रखा गया है?

अट नहीं रही

- कवि की आँख फागुन की सुंदरता से क्यों नहीं हट रही है?
- फागुन में ऐसा क्या होता है जो बाकी ऋतुओं से भिन्न होता है ?

बच्चे की दंतुरित मुसकान

- बच्चे की दंतुरित मुसकान का कवि के मन पर क्या प्रभाव पड़ता है?
- बच्चे की मुसकान और एक बड़े व्यक्ति की मुसकान में क्या अंतर है ?

फसल

- कवि के अनुसार फसल क्या है?
- कविता में फसल उपजाने के लिए आवश्यक तत्वों की बात कही गई है। वे आवश्यक तत्व कौन-कौन से हैं?
- फसल को 'हाथों के स्पर्श की गरिमा' और 'महिमा' कहकर कवि क्या व्यक्त करना चाहता है?

संगतकार

- संगतकार जैसे व्यक्ति संगीत के अलावा और किन-किन क्षेत्रों में दिखाई देते हैं ?
- संगतकार के माध्यम से कवि किस प्रकार के व्यक्तियों की ओर संकेत करना चाह रहा है ?
- संगतकार किन-किन रूपों में मुख्य गायक-गायिकाओं की मदद करते हैं?
- सफलता के चरम शिखर पर पहुँचने के दौरान यदि व्यक्ति लड़खड़ाते हैं तब उसे सहयोगी किस तरह सँभालते हैं?

गद्य खंड (11 अंक)

नेताजी का चश्मा

- सेनानी न होते हुए भी चश्मेवाले को लोग कैप्टन क्यों कहते थे?
- "वो लँगड़ा क्या जाएगा फ़ौज में। पागल है पागल!"
  कैप्टन के प्रति पानवाले की इस टिप्पणी पर अपनी प्रतिक्रिया लिखिए।
- मूर्ति पर सरकंडे का चश्मा क्या उम्मीद जगाता है?

बालगोबिन भगत

- भगत की पुत्रवधू उन्हें अकेले क्यों नहीं छोड़ना चाहती थी?
- भगत ने अपने बेटे की मृत्यु पर अपनी भावनाएँ किस तरह व्यक्त कीं?

- खेतीबारी से जुड़े गृहस्थ बालगोबिन भगत अपनी किन चारित्रिक विशेषताओं के कारण साधु कहलाते थे?

लखनवी अंदाज़

- नवाब साहब ने बहुत ही यत्ने से खीरा काटा, नमक-मिर्च बुरका, अंततः सँधकर ही खिड़की से बाहर फेंक दिया। उन्होंने ऐसा क्यों किया होगा? उनका ऐसा करना उनके कैसे स्वभाव को इंगित करता है?
- बिना विचार, घटना और पात्रों के भी क्या कहानी लिखी जा सकती है। यशपाल के इस विचार से आप कहाँ तक सहमत हैं?

एक कहानी यह भी

- इस आत्मकथ्य में लेखिका के पिता ने रसोई को 'भटियारखाना' कहकर क्यों संबोधित किया है?
- वह कौन-सी घटना थी जिसके बारे में सुनने पर लेखिका को न अपनी आँखों पर विश्वास हो पाया और न अपने कानों पर?
- मनुष्य के जीवन में आस-पड़ोस का बहुत महत्व होता है। परंतु महानगरों में रहने वाले लोग प्राय: 'पड़ोस कल्चर' से वंचित रह जाते हैं। इस बारे में अपने विचार लिखिए।

नौबतखाने में इबादत

- बिस्मिल्ला खाँ को शहनाई की मंगलध्वनि का नायक क्यों कहा गया है?
- सुषिर-वाद्यों से क्या अभिप्राय है? शहनाई को 'सुषिर वाद्यों में शाह' की उपाधि क्यों दी गई होगी?
- बिस्मिल्ला खाँ कला के अनन्य उपासक थे, तर्क सहित उत्तर दीजिए।
- काशी में हो रहे कौन-से परिवर्तन बिस्मिल्ला खाँ को व्यथित करते थे?

संस्कृति

- लेखक की दृष्टि में 'सभ्यता' और 'संस्कृति' की सही समझ अब तक क्यों नहीं बन पाई है?
- वास्तविक अर्थों में 'संस्कृत व्यक्ति' किसे कहा जा सकता है?
- मानव की जो योग्यता उससे आत्म-विनाश के साधनों का आविष्कार कराती है, हम उसे उसकी संस्कृति कहें या असंस्कृति?

कृतिका (8 अंक)

माता का आँचल

- प्रस्तुत पाठ के आधार पर यह कहा जा सकता है कि बच्चे का अपने पिता से अधिक जुड़ाव था, फिर भी विपदा के समय वह पिता के पास न जाकर माँ की शरण लेता है। आपकी समझ से इसकी क्या वजह हो सकती है?
- आपके विचार से भोलनाथ अपने साथियों को देखकर सिसकना क्यों भूल जाता है?
- यहाँ माता-पिता का बच्चे के प्रति जो वात्सल्य व्यक्त हुआ है, उसे अपने शब्दों में लिखिए।
- माता का अँचल शीर्षक की उपयुक्तता बताते हुए कोई अन्य शीर्षक सुझाइए।
- इस पाठ में बच्चों की जो दुनिया रची गई है वह आपके बचपन की दुनिया से किस तरह भिन्न है?

साना-साना हाथ जोड़ि

- झिलमिलाते सितारों की रोशनी में नहाया गंतोक लेखिका को किस तरह सम्मोहित कर रहा था?
- गंतोक को 'मेहनकश बादशाहों का शहर' क्यों कहा गया?
- लोंग स्टॉक में घूमते हुए चक्र को देखकर लेखिका को पूरे भारत की आत्मा एक-सी क्यों दिखाई दी?
- आज की पीढ़ी द्वारा प्रकृति के साथ किस तरह का खिलवाड़ किया जा रहा है। इसे रोकने में आपकी क्या भूमिका होनी चाहिए।

मैं क्यों लिखता हूँ?

- लेखक के अनुसार प्रत्यक्ष अनुभव की अपेक्षा अनुभूति उनके लेखन में कहीं अधिक मदद करती है, क्यों?
- लेखक ने अपने आपको हिरोशिमा के विस्फोट का भोक्ता कब और किस तरह महसूस किया?
- किसी रचनाकार के प्रेरणा स्रोत किसी दूसरे को कुछ भी रचने के लिए किस तरह उत्साहित कर सकते हैं?
- हिरोशिमा की घटना विज्ञान का भयानकतम दुरुपयोग है। आपकी दृष्टि में विज्ञान का दुरुपयोग कहाँ-कहाँ और किस तरह से हो रहा है?

रचनात्मक लेखन (20 अंक)

अनुच्छेद लेखन

1. पर्यावरण प्रदूषण
2. महिला सशक्तिकरण
3. बेरोजगारी की समस्या
4. आतंकवाद
5. भ्रष्टाचार:
6. समय का महत्त्व
7. जनसख्या वृद्धि
8. खेलों का महत्त्व

नोट - विद्यार्थी ध्यान दें कि परीक्षा के दौरान *तीन अनुच्छेद* में से किसी एक को ही हल करना होता है

पत्र लेखन (5 अंक)

औपचारिक पत्र

- बस में यात्रा करते हुए आपका एक बैग छूट गया था जिसमें जरूरी कागज और रुपये थे। उसे बस कंडक्टर ने आपके घर आकर लौटा दिया। उसकी प्रशंसा करते हुए परिवहन निगम के अध्यक्ष को 80-100 शब्दों में पत्र लिखिए।
- आपके नाम से प्रेषित एक हजार रु. के मनीआर्डर की प्राप्ति न होने का 80-100 शब्दों में शिकायत पत्र अधीक्षक पोस्ट आफिस को लिखिए।
- समाज में बढ़ते अपराध को रोकने के लिए नागरिकों को जागरूक करने का आग्रह करते हुए किसी दैनिक अखबार के संपादक को 80-100 शब्दों में पत्र लिखिए।
- अपने क्षेत्र के नालियों तथा सड़कों की समुचित सफाई न होने पर स्वास्थ्य अधिकारी को एक पत्र लगभग 80-100 शब्दों में लिखिए।
- लाउडस्पीकर की समस्या की शिकायत करते हुए अपने क्षेत्र के कलेक्टर को एक शिकायती पत्र लिखो |
- चोरी, डकैती, और मारपीट की घटनाओं की शिकायत करते हुए पुलिस अधीक्षक को 80-100 शब्दों में एक पत्र लिखो |

अनौपचारिक पत्र (5 अंक)

- आप साक्षी/सक्षम हैं। अपने मित्र रुद्र को मुंबई में अपने घर पर गर्मी की छुट्टियाँ बिताने के लिए आमंत्रित करते हुए 100 शब्दों का एक पत्र लिखें। से ज़्यादा न लिखें।
- आप मानवी/मानव हैं। अपने उस दोस्त को, जिसका हाल ही में एक्सीडेंट हुआ है, सांत्वना भरे लहजे में लगभग 100 शब्दों में एक पत्र लिखिए जिसमें उसे उसके शीघ्र स्वस्थ होने की सूचना दी गई हो।
- अपने मित्र को कक्षा 12 की बोर्ड परीक्षा में सफलता के लिए बधाई पत्र लिखें।
- आप समीर/साम्या हैं। अपनी सबसे अच्छी दोस्त को अपने जन्मदिन की पार्टी में आमंत्रित करते हुए, उसे केवल 100 शब्दों में एक पत्र लिखें।
- **नोट - विद्यार्थी ध्यान दें कि परीक्षा के दौरान *औपचारिक पत्र* तथा *अनौपचारिक पत्र* में से किसी एक को ही हल करना होता है**

स्ववृत लेखन (5 अंक)

- आप तरुण वैश्य/तरुणा वैश्य हैं, आपके पास बीएड की डिग्री है। आपको विवेक इंटरनेशनल स्कूल में हिंदी की अध्यापिका/अध्यापक के पद के लिए आवेदन करना है। अतः आप 80 शब्दों का एक स्ववृत तैयार कीजिए।
- आप रजनी/राजन हैं। आपके विद्यालय की पत्रिका प्रखर के लिए छात्र संपादक की नियुक्ति होनी है आप उक्त पद के योग्य हैं इस पद के लिए प्रधानाचार्य को संबोधित कर लगभग 80 शब्दों में अपना स्वागत तैयार कीजिए
- आप नेहा वर्मा है। आपने दिल्ली से बीबीए किया है। एक एमएनसी में कस्टमर केयर एक्सक्यूटिव के पद पर आवेदन हेतु एक स्ववृत तैयार कीजिए।

- आपका नाम दीपक मौर्य है। आपने अर्थशास्त्र में डिग्री प्राप्त की है। आपको जोधपुर के सांख्यिकी अधिकारी के पद के लिए आवेदन करना है। अतः इसके लिए एक स्ववृत्त तैयार कीजिए।

<u>ईमेल लेखन</u> (5 अंक)

- आपके शहर में सभी प्रकार के खाद्य पदार्थों में मिलावट का धंधा लगातार बढ़ता ही जा रहा है। अपने राज्य के खाद्य-मंत्री को dfpd@gov.in पर एक ईमेल लिखकर इस समस्या के प्रति उनका ध्यान आकृष्ट कीजिए।
- छात्रों के लिए अधिक खेल-सामग्री उपलब्ध कराने का अनुरोध करते हुए अपने प्रधानाचार्य महोदय को xyzschool@gmail.com पर एक ईमेल लिखिए।
- आपको चरित्र प्रमाण-पत्र की आवश्यकता है। चरित्र प्रमाण-पत्र प्राप्त करने के लिए अपने विद्यालय के प्रधानाचार्य abcschool@gmail.com को ईमेल लिखिए।
- आपके इलाक़े में एक सीवर टूट गया है जिसके कारण नाले का गंदा पानी सड़क पर आ गया है। ज्यादा गंदा फैल रहा है। सीवर की मरम्मत करवाने हेतु निगम अधिकारी को cdaf@eafg.com पर ईमेल लिखिये।
- **नोट - <u>विद्यार्थी ध्यान दें कि परीक्षा के दौरान *स्ववृत लेखन* तथा *ईमेल लेखन* में से किसी एक को ही हल करना होता है</u>**

<u>विज्ञापन लेखन</u> (4 अंक)

- अपने पुराने मकान के बेचने सम्बन्धी विज्ञापन का आलेख लगभग 40 शब्दों में तैयार कीजिए।
- सड़क पर टहलते हुए आपको एक बैग मिला, जिसमे कुछ रुपये, मोबाइल फोन तथा अन्य कई महत्वपूर्ण कागज़ात थे। लगभग 40 शब्दों में एक विज्ञापन तैयार कीजिए कि अधिकारी व्यक्ति आपसे संपर्क कर अपना बैग ले जाए।
- आप एक योग प्रशिक्षण केंद्र खोलना चाहते हैं। इस संबंध में युवाओं को आकर्षित करने वाला एक विज्ञापन तैयार कीजिए।
- 'सरस्वती पुस्तक भंडार' पुस्तक की बिक्री बढ़ाने हेतु विज्ञापन तैयार करवाना चाहता है। आप उसके लिए एक विज्ञापन तैयार कीजिए।
- आपको अपनी पुरानी मोटर साइकिल बेचनी हैं। इसके लिए विज्ञापन तैयार कीजिए।
- रचना रजिस्टर एवं कापियाँ बनाने वाली कंपनी के लिए एक विज्ञापन तैयार कीजिए।
- आप अपनी पुरानी कार बेचना चाहते हैं। इसके लिए एक विज्ञापन तैयार कीजिए।
- मोनू स्कूल बैग्स' अपने बैगों की बिक्री बढ़ाना चाहते हैं। इसके लिए एक विज्ञापन तैयार कीजिए।

<u>सन्देश लेखन</u> (4 अंक)

- अपने मित्र सुधा को बैडमिंटन में राजकीय स्तर पर सर्वश्रेष्ठ प्रदर्शन के लिए 40 शब्दों में बधाई पत्र लिखिए|
- अपनी कक्षा के प्रतिनिधि के रूप में सभी सहपाठियों को आगामी बोर्ड परीक्षा के लिए शुभकामना का संदेश लगभग 40 शब्दों में लिखिए।
- आपके मित्र ने नीट की परीक्षा में राज्य में तीसरा स्थान प्राप्त किया है। उसे बधाई देते हुए लगभग 40 शब्दों में एक संदेश लिखिए।
- आप अनन्य देव/मीना मोहनी हैं और जल्द ही आपके पिताजी की लिखी हुई दसवीं किताब प्रकाशित होने वाली है। उन्हें बधाई और शुभकामना का संदेश 40 शब्दों में लिखिए।

नोट - <u>विद्यार्थी ध्यान दें कि परीक्षा के दौरान *विज्ञापन लेखन* तथा *सन्देश लेखन* में से किसी एक को ही हल करना होता है</u>

CHAPTER- 1 (REAL NUMBERS)

(Fundamental Theorem of Arithmetic) : Every composite number can be expressed (factorised) as a product of primes, and this factorisation is unique, apart from the order in which the prime factors occur. For any two positive integers a and b, HCF (a, b) × LCM (a, b) = a × b.

Q.1 Find the LCM and HCF of 6 and 20 by the prime factorisation method

Q.2 Find the HCF of 96 and 404 by the prime factorisation method. Hence, find their LCM.

Q.3 Given that HCF (306, 657) = 9, find LCM (306, 657).

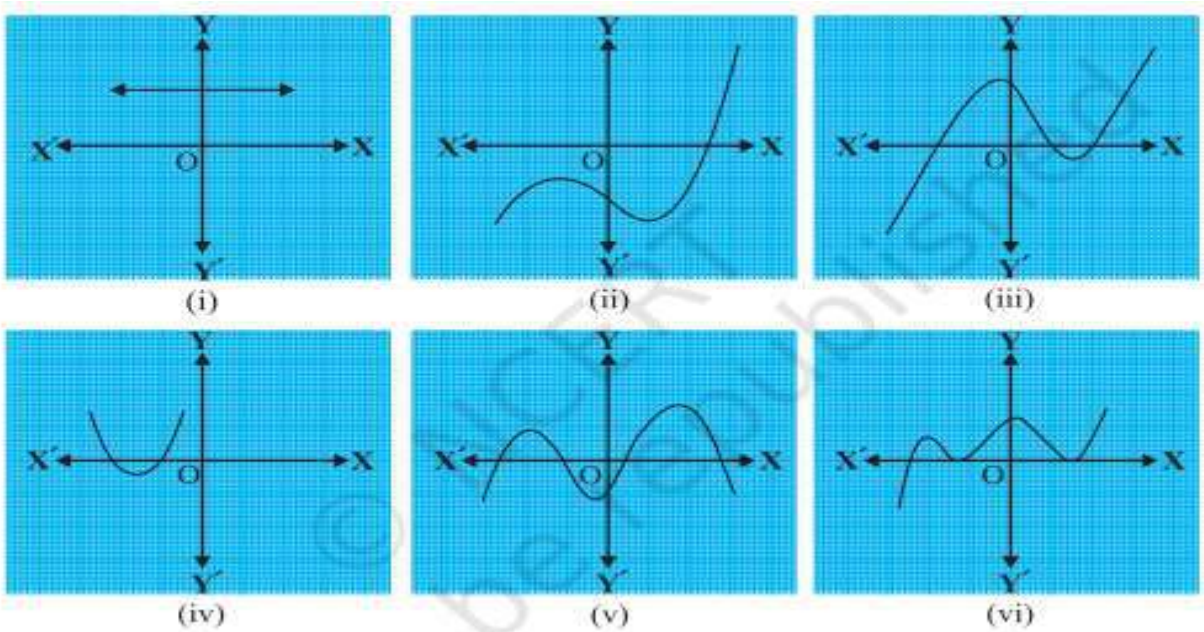
Q.4 Check whether 6n can end with the digit 0 for any natural number n

Q.5 Prove that $\sqrt{3}$, $\sqrt{2}$, $\sqrt{7}$ $\sqrt{11}$ is irrational.

Q.6 Show that 5–$\sqrt{3}$ is irrational.

CHAPTER-2(POLYNOMIALS)

Q.1 The graphs of y = p(x) are given in fig. below, for some polynomials p(x). Find the number of zeroes of p(x), in each case.



Q.2 Find the zeroes of the quadratic polynomial x2 + 7x + 10, and verify the relationship between the zeroes and the coefficients.

Q.3 : Find a quadratic polynomial, the sum and product of whose zeroes are – 3 and 2, respectively.

Q.4 Find a quadratic polynomial each with the given numbers as the sum and product of its zeroes respectively.

(i) (1,1) (ii) ($\sqrt{3}$,1) (iii) $\frac{1}{4}$, -1 (iv) ($\sqrt{2}$,1/3)

CHAPTER-3 (PAIR OF LINEAR EQUATIONS IN TWO VARIABLES)

Q.1: Check graphically whether the pair of equations x + 3y = 6 and 2x – 3y = 12 is consistent. If so, solve them graphically.

Q.2 Which of the following pairs of linear equations are consistent/inconsistent?

: (i) x + y = 5, 2x + 2y = 10

(ii) x – y = 8, 3x – 3y = 16

(iii) 2x + y – 6 = 0, 4x – 2y – 4 = 0

(iv) 2x – 2y – 2 = 0, 4x – 4y – 5 = 0

Q.3 Solve 2x + 3y = 11 and 2x – 4y = – 24 and hence find the value of 'm' for which y = mx + 3.

Q.4 The taxi charges in a city consist of a fixed charge together with the charge for the distance covered. For a distance of 10 km, the charge paid is **Rs.**105 and for a journey of 15 km, the charge paid is **Rs.** 155. What are the fixed charges and the charge per km? How much does a person have to pay for travelling a distance of 25 km?

Q.5 Five years ago, Nuri was thrice as old as Sonu. Ten years later, Nuri will be twice as old as Sonu. How old are Nuri and Sonu?

CHAPTER-4(QUADRATIC EQUATIONS)

Q.1 A train travels a distance of 480 km at a uniform speed. If the speed had been 8 km/h less, then it would have taken 3 hours more to cover the same distance. We need to find the speed of the train.

Q.2 Find the roots of the quadratic equation $6x^2 – x – 2 = 0$

Q.3 Find the roots of the quadratic equation $3x^2 - 2\sqrt{6}\,x + 2 = 0$

Q.4 Find two numbers whose sum is 27 and product is 182.

Q.5: Find the discriminant of the quadratic equation $2x^2 – 4x + 3 = 0$, and hence find the nature of its roots.

Q.6 Find the nature of the roots of the following quadratic equations. If the real roots exist, find them:

(i) $2x^2 – 3x + 5 = 0$

(ii) $3x^2 – 4\sqrt{3}\,x + 4 = 0$

(iii) $2x^2 – 6x + 3 = 0$

CHAPTER-5 (ARITHMETIC PROGRESSIONS)

Q.1 Find the 10th term of the AP : 2, 7, 12, . . .

Q.2 How many two-digit numbers are divisible by 3?

Q.3 Find the 31st term of an AP whose 11th term is 38 and the 16th term is 73

Q.4 If the 3rd and the 9th terms of an AP are 4 and – 8 respectively, which term of this AP is zero?

Q.5 Find the 20th term from the last term of the AP : 3, 8, 13, . . ., 253.

Q.6 The first term of an AP is 5, the last term is 45 and the sum is 400. Find the number of terms and the common difference.

Q.7 If the sum of first 7 terms of an AP is 49 and that of 17 terms is 289, find the sum of first n terms.

Q.8 Find the sum of the odd numbers between 0 and 50.

CHAPTER-6 (TRIANGLES)

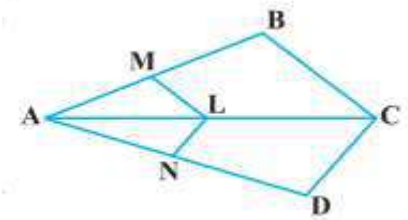
Q.1 State and prove Basic Proportionality Theorem(BPT).

Q.2 ABCD is a trapezium in which AB || DC and its diagonals intersect each other at the point O. Show that $\frac{AO}{BO} = \frac{CO}{DO}$.

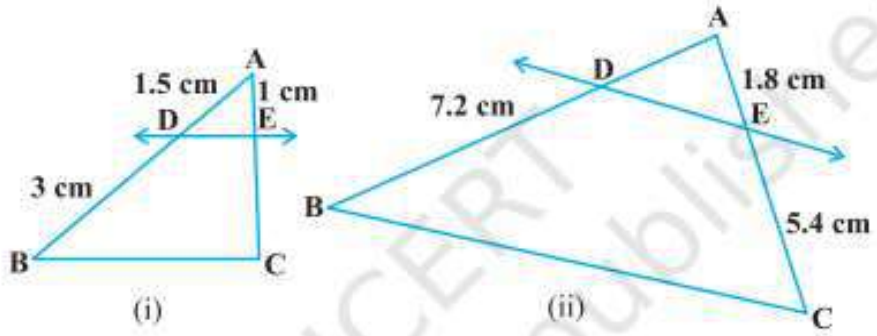
Q.3 If AD and PM are medians of triangles ABC and PQR, respectively where Δ ABC ~ Δ PQR, prove that $\frac{AB}{PQ} = \frac{AD}{PM}$.

***Q*.4** In the figure given below , if LM || CB and LN || CD, prove that

$$\frac{AM}{AB} = \frac{AN}{AD}$$



Q.5 In the figures given below, (i) and (ii), DE || BC. Find EC in (i) and AD in (ii).



CHAPTER-7 (CO-ORDINATE GEOMETRY)

Q.1 Check whether (5, – 2), (6, 4) and (7, – 2) are the vertices of an isosceles triangle.

Q.2 Find a relation between x and y such that the point (x, y) is equidistant from the point (3, 6) and (– 3, 4)

Q.3 Find the distance between the following pairs of points:

(i) (2, 3), (4, 1)

(ii) (– 5, 7), (– 1, 3)

(iii) (a, b), (– a, – b)

Q.4 Find the coordinates of the point which divides the join of (–1, 7) and (4, –3) in the ratio 2 : 3.

Q.5 Find the ratio in which the line segment joining the points (– 3, 10) and (6, – 8) is divided by (– 1, 6).

Q.6 If (1, 2), (4, y), (x, 6) and (3, 5) are the vertices of a parallelogram taken in order, find x and y.

Q.7 Find the ratio in which the line segment joining A(1, – 5) and B(– 4, 5) is divided by the x-axis. Also find the coordinates of the point of division

CHAPTER-8 (INTRODUCTION TO TRIGONOMETRY)

Q.1 If sin A = $\frac{3}{4}$,calculate cos A and tan A.

Q.2 Given 15 cot A = 8, find sin A and sec A.

Q.3 If cot $\theta = \frac{7}{8}$ evaluate : (i) $\frac{(1-sinQ)(1+sinQ)}{(1-cosQ)(1+cosQ)}$.

Q.4 Evaluate the followings:

(i) sin 60° cos 30° + sin 30° cos 60°

(ii) $2\tan^2 45° + \cos^2 30° - \sin^2 60°$

(iii) $\frac{\sin 30° + \tan 45° - \text{cosec } 60°}{\sec 30° + \cos 60° + \cot 45°}$

(iv) $\frac{5\cos^2 60° + 4\sec^2 30° - \tan^2 45°}{\sin^2 30° + \cos^2 30°}$

Q.5 Prove that sec A (1 – sin A) (sec A + tan A) = 1.

Q.6 Express the ratios cos A, tan A and sec A in terms of sin A

Q.7 Prove that $\sqrt{\frac{1+sinA}{1-sinA}}$ = secA + tanA

Q.8 $\frac{tanA}{1-cotA} + \frac{cotA}{1-tanA} =$ sec A .cosec A +1

Q.9 Prove that $\frac{sinA-cosA+1}{sinA+cosA-1} = \frac{1}{secA-tanA}$

Q.10 In Δ ABC, right-angled at B, AB = 24 cm, BC = 7 cm. Determine :

(i) sin A, cos A

(ii) sin C, cos C

CHAPTER-9(SOME APPLICATIONS OF TRIGONOMETRY)

Q.1 The shadow of a tower standing on a level ground is found to be 40 m longer when the Sun's altitude is 30° than when it is 60°. Find the height of the tower.

Q.2. A tree breaks due to storm and the broken part bends so that the top of the tree touches the ground making an angle 30° with it. The distance between the foot of the tree to the point where the top touches the ground is 8 m. Find the height of the tree.

Q.3 A statue, 1.6 m tall, stands on the top of a pedestal. From a point on the ground, the angle of elevation of the top of the statue is 60° and from the same point the angle of elevation of the top of the pedestal is 45°. Find the height of the pedestal.

Q.4 Two poles of equal heights are standing opposite each other on either side of the road, which is 80 m wide. From a point between them on the road, the angles of elevation of the top of the poles are 60° and 30°, respectively. Find the height of the poles and the distances of the point from the poles.

Q.5 A 1.2 m tall girl spots a balloon moving with the wind in a horizontal line at a height of 88.2 m from the ground. The angle of elevation of the balloon from the eyes of the girl at any instant is 60°. After some time, the angle of elevation reduces to 30°. Find the distance travelled by the balloon during the interval.

Q.6 A straight highway leads to the foot of a tower. A man standing at the top of the tower observes a car at an angle of depression of 30°, which is approaching the foot of the tower with a uniform speed. Six seconds later, the angle of depression of the car is found to be 60°. Find the time taken by the car to reach the foot of the tower from this point.

CHAPTER-10 (CIRCLES)

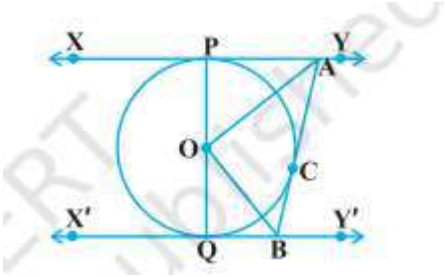
Q.1 A tangent PQ at a point P of a circle of radius 5 cm meets a line through the centre O at a point Q so that OQ = 12 cm. then what is the length of PQ?

Q.2 The length of a tangent from a point A at distance 5 cm from the centre of the circle is 4 cm. Find the radius of the circle.

Q.3 Two concentric circles are of radii 5 cm and 3 cm. Find the length of the chord of the larger circle which touches the smaller circle.

Q.4 A quadrilateral ABCD is drawn to circumscribe a circle . Prove that AB + CD = AD + BC

Q.5 In Fig. , XY and X′Y′ are two parallel tangents to a circle with centre O and another tangent AB with point of contact C intersecting XY at A and X′Y′ at B. Prove that ∠ AOB = 90°.



Q.6 Prove that the parallelogram circumscribing a circle is a rhombus.

CHAPTER-11(AREA RELATED TO CIRCLES)

Q.1 Find the area of a sector of a circle with radius 6 cm if angle of the sector is 60°

Q.2 Find the area of a quadrant of a circle whose circumference is 22 cm.

Q.3 The length of the minute hand of a clock is 14 cm. Find the area swept by the minute hand in 5 minutes.

Q.4 A chord of a circle of radius 10 cm subtends a right angle at the centre. Find the area of the corresponding: (i) minor segment (ii) major sector. (Use $\pi = 3.14$)

Q.5 A horse is tied to a peg at one corner of a square shaped grass field of side 15 m by means of a 5 m long rope. Find (i) the area of that part of the field in which the horse can graze.

(ii)) the increase in the grazing area if the rope were 10 m long instead of 5 m. (Use $\pi = 3.14$)

CHAPTER-12(SURFACE AREAS AND VOLUMES)

Q.1 2 cubes each of volume 64 cm3 are joined end to end. Find the surface area of the resulting cuboid

Q.2 A vessel is in the form of a hollow hemisphere mounted by a hollow cylinder. The diameter of the hemisphere is 14 cm and the total height of the vessel is 13 cm. Find the inner surface area of the vessel.

Q.3 A solid is in the shape of a cone standing on a hemisphere with both their radii being equal to 1 cm and the height of the cone is equal to its radius. Find the volume of the solid in terms of π.

Q.4 A gulab jamun, contains sugar syrup up to about 30% of its volume. Find approximately how much syrup would be found in 45 gulab jamuns, each shaped like a cylinder with two hemispherical ends with length 5 cm and diameter 2.8 cm.

Q.5 A vessel is in the form of an inverted cone. Its height is 8 cm and the radius of its top, which is open, is 5 cm. It is filled with water up to the brim. When lead shots, each of which is a sphere of radius 0.5 cm are dropped into the vessel, one-fourth of the water flows out. Find the number of lead shots dropped in the vessel.

CHAPTER-13(STATISTICS)

Q.1 A survey was conducted by a group of students as a part of their environment awareness programme, in which they collected the following data regarding the number of plants in 20 houses in a locality. Find the mean number of plants per house.

Number of plants	0-2	2-4	4-6	6-8	8-10	10-12	12-14
Number of houses	1	2	1	5	6	2	3

Q.2 The following table gives the literacy rate (in percentage) of 35 cities. Find the mean literacy rate.

C.I.	45-55	55-65	65-75	75-85	85-95
fi	3	10	11	8	3

Q.3 Find the mode of the data given below.

C.I.	5-15	15-25	25-35	35-45	45-55	55-65
fi	6	11	21	23	14	5

Q.4 Find the mode of the data given below.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70
fi	7	14	13	12	20	11	15

Q.5 Find the median of the data given below.

C.I.	65-85	85-105	105-125	125-145	145-165	165-185	185-205
fi	4	5	13	20	14	8	4

Q.6 If the median of the distribution given below is 28.5, find the values of x and y.

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	TOTAL
fi	5	x	20	15	y	5	60

Q.7 A life insurance agent found the following data for distribution of ages of 100 policy holders. Calculate the median age, if policies are given only to persons having age 18 years onwards but less than 60 years.

Age in years	Below 20	Below 25	Below 30	Below 35	Below 40	Below 45	Below 50	Below 55	Below 60
No. of policy holders	2	6	24	45	78	89	92	98	100

CHAPTER-14(PROBABILITY)

Q.1 Why is tossing a coin considered to be a fair way of deciding which team should get the ball at the beginning of a football game?

Q.2 One card is drawn from a well-shuffled deck of 52 cards. Find the probability of getting

(i) a king of red colour
(ii) a face card
(iii) a red face card
(iv) the jack of hearts
(v) a spade
(vi) the queen of diamonds

Q.3 A die is thrown twice. What is the probability that

(i) 5 will not come up either time?
(ii) 5 will come up at least once?

Q.4 A game of chance consists of spinning an arrow which comes to rest pointing at one of the numbers 1, 2, 3, 4, 5, 6, 7, 8 and these are equally likely outcomes. What is the probability that it will point at?

(i) 8?
(ii) an odd number?
(iii) a number greater than 2?
(iv) a number less than 9?

SCIENCE QUESTION BANK

Chapter 1 CHEMICAL REACTIONS AND EQUATIONS

(1) Identify the type of reaction in the following examples

a) $Na_2SO_4 + BaCl_2 \rightarrow BaSO_4 + 2NaCl$. b) $N_2 + 3H_2 \rightarrow 2NH_3$

c) $2Pb(NO_3)_2 \rightarrow 2PbO + 4NO_2 + O_2$ d) $Zn + 2AgNO_3 \rightarrow Zn(NO_3)_2 + 2Ag$

(2) Define the following terms with examples.

a) Oxidation b) Reduction c) Corrosion d) Redox Reaction

(3) Balance the following equations

a) $MnO_2 + HCl \rightarrow MnCl_2 + H_2O + Cl_2$ (b) $NH_3 + O_2 \rightarrow NO + H_2O$

c) $C_4H_{10} + O_2 \rightarrow CO_2 + H_2O$ (d) $Fe_2(SO_4)_3 + BaCl_2 \rightarrow FeCl_3 + BaSO_4$

(4) What is rancidity? Mention any two ways by which it can be prevented.

(5) **Write balanced chemical equations with state symbols for the following reactions.**

a) Sodium hydroxide solution reacts with hydrochloric acid solution to produce sodium chloride solution and water .

b) Barium chloride solution reacts with aluminium sulphate solution to form a precipitate of barium

c) Potassium reacts with water to give potassium hydroxide and hydrogen .

(6) Give examples for the following:

(i)Precipitation reaction (ii) Thermal decomposition. (iii)Natural oxidation. (iv)Exothermic reaction.

(7)Identify the substances that are oxidized and the substances that are reduced in the following reactions.

(i) $4Na(s) + O_2(g) \rightarrow 2Na_2O(s)$ (ii) $CuO(s) + H_2(g) \rightarrow Cu(s) + H_2O(l)$ (iii) $Fe_2O_3 + 3CO\ 2Fe + 3CO_2$

Chapter 2 ACIDS, BASES AND SALTS

(1) Name the acids present in the following foodstuffs which attribute to a sour taste to them **(a)Lemon juice (b)Vinegar (c)Vitamin C tablet (d)Tamarind (e)Sour milk**

(2)Pick up acids, bases and salts from the list given below.

HCl, $NaCl$, KOH, $Ca(OH)_2$, H_2CO_3, H_3PO_4, NH_4OH, $CuSO_4$, Na_2CO_3

(3) How does the flow of acid rain water into a river makes the survival of aquatic life difficult.

(4) Tooth enamel is one of the hardest substance in our body.How does it undergo damage due to eating chocolates and sweets?How do toothpastes prevent this damage?

(5) How will you test a gas which is liberated when hydrochloric acid reacts with an active metal?

(6) Mention the common and chemical names of the following:

a. $NaHCO_3$ b. Na_2CO_3 c. $CaOCl_2$ d. P.O.P

(7) What is water of crystallisation? Give two examples of salts with water of crystallisation. Write balanced chemical equation for the effect of heat on crystalline copper sulphate.

(8) Why should water be never added dropwise to concentrated sulphuric acid?

(10) Write balanced chemical equations for the following chemical reactions

i. Magnesium reacts with dil. Sulphuric acid.
ii. Aluminium powder reacts with hydrochloric acid.
iii. A pinch of baking soda is added to hydrochloric acid.
iv. Sodium oxide reacts with sulphuric acid.
v. Carbon dioxide gas is passed through limewater.
vi. Ammonium hydroxide reacts with sulphuric acid.

(11) What are olfactory indicators? Give 2 examples.

(12) How are bases different from alkalis? Are all bases alkalies?

(13) What are strong acids and weak acids? Give two examples.

Chapter 3 METALS AND NONMETAL

1. List any five physical properties of metals and compare them with those of non-metals.
2. State the observations when:
   a) A magnesium ribbon is burnt in a flame. b) Copper metal is heated in air.
3. Name any two metal oxides that dissolve in water. Write their chemical equations.
4. Show with the help of chemical equations that aluminium oxide (Al_2O_3) is an amphoteric oxide.
5. Write balanced chemical equations for the reaction of an acid with:
   a) Zinc metal b) Sodium carbonate (Na_2CO_3)
   c) Sodium bicarbonate ($NaHCO_3$) d) Sodium hydroxide solution (NaOH)
6. Why does no hydrogen gas evolve when nitric acid reacts with metals?
7. Define the reactivity series of metals.
8. What is an electrovalent (ionic) bond? Draw electron-dot diagrams to show the formation of: (I)NaCl (II)Na_2O (III)MgO (IV)$MgCl_2$
9. Explain why aqueous sodium chloride conducts electricity but solid sodium chloride does not.
10. Write any four properties of ionic compounds.
11. Differentiate between a mineral and an ore (any two points).
12. Give reasons for the following:
    a) Gold and silver are found in the free state.
    b) Sodium is never found in the free state.
    c) Sulphide ores are converted into oxides for extraction of metals.
    d) Metals like mercury can be reduced by heating alone.
    e) Oxides of metals such as sodium, magnesium, and calcium cannot be reduced by carbon.

Chapter 4 CARBON AND ITS COMPOUND

1. Why does carbon forms compounds mainly by covalent bonding?
2. Name the three allotropes of carbon.
3. Which of the following compounds can have a triple bond?
   C_2H_4 C_3H_4 C_3H_6
4. Which of the following compounds can have a double bond?
   C_4H_{10} C_5H_8 C_5H_{10}
5. Give the names of one saturated cyclic hydrocarbon and one unsaturated cyclic hydrocarbon.
6. Write the molecular formula and structure of benzene.
7. Write the electron dot structure for the following compounds:
(1) H2 (2) O2 (3) N2 (4)CO2 (5) S8 (6) H2 (7) NH3 (8) CCl4 (9)CH4 (10) C5H12
8. What is meant by homologous series? State any four characteristics.
9. What is saponification? Describe how soap is prepared in the laboratory. Explain the cleansing action of soap.
10. What is fermentation? How is ethanol prepared by fermentation? Give two uses of ethyl alcohol. What are the harmful effects of drinking alcohol?

11 **Give reasons for the following :**
a. Carbon form covalent bond by sharing electron.
b. Covalent compounds are in gaseous or liquid state at normal temperature and pressure.
c. Covalent compounds are bad conductors of electricity.
d. Diamond known as the hardest metal
e. Covalent compounds have less melting and boiling points
f. Diamond is not a good conductor of electricity
(12)Why does carbon has maximum tendency for catenation?

Chapter 5 – Life Processes

1. Name the basic unit of life.
2. What is the mode of nutrition in Amoeba?
3. Name the pigment responsible for photosynthesis.
4. Where does digestion of protein start in the human body?
5. What is the main excretory product in human beings?
6. Differentiate between autotrophic and heterotrophic nutrition.
7. Draw a labelled diagram of human excretory system (outline only).
8. What is the role of stomata in plants?
9. Explain the process of digestion of carbohydrates in humans.
10. Describe the role of the diaphragm in breathing.
11. Explain the role of alveoli in gaseous exchange.
12. Write differences between xylem and phloem.
13. Describe the human digestive system with a labelled diagram.
14. Explain the process of photosynthesis with an equation.
15. Explain the mechanism of circulation of blood in humans.
16. Describe the structure and function of the nephron.

Chapter 6 – Control and Coordination

1. Name the largest cell in the human body.
2. Name the part of the brain responsible for maintaining posture and balance.
3. Which hormone regulates sugar level in blood?
4. Name the functional unit of the nervous system.
5. What are plant hormones called?
6. Differentiate between sensory and motor neurons.
7. Name two plant hormones and their functions.
8. What is reflex action?
9. Write two differences between voluntary and involuntary actions.
10. What is phototropism? Give an example.
11. How does nervous system control voluntary actions?
12. Explain hydrotropism and thigmotropism with examples.
13. Describe the role of auxin in plant growth.
14. Describe the structure of a neuron with a labelled diagram.
15. Explain reflex arc with the help of a diagram.
16. Explain the role of brain in controlling movements.

Chapter 7 – How do Organisms Reproduce?

1. Name the reproductive unit of organisms.
2. Give one example of a unisexual flower.
3. What is the site of fertilisation in humans?
4. Name the process by which plants make seeds without fertilisation.
5. Name the causative organism of AIDS.
6. Differentiate between asexual and sexual reproduction.
7. What is vegetative propagation? Give one example.
8. Name the reproductive parts of a flower.
9. What is the role of placenta during pregnancy?
10. Write two STDs and their modes of transmission.

11. Explain binary fission and multiple fission with examples.
12. Describe the process of pollination.
13. What are the advantages of sexual reproduction?
14. Explain regeneration in Hydra.
15. Describe the process of fertilisation in humans.
16. Explain the different methods of asexual reproduction.
17. Describe the structure of the human male reproductive system.
18. Describe the structure of the human female reproductive system.
19. Discuss the importance of reproductive health.
20. Explain the menstrual cycle in humans.

Chapter 8 – Heredity

1. Who is known as the father of genetics?
2. Define variation.
3. What is a gene?
4. Name the sex chromosomes in human males.
5. What is the percentage of offspring showing recessive traits in monohybrid cross?
6. Differentiate between genotype and phenotype.
7. State Mendel's law of segregation.
8. What is a trait? Give an example.
9. Explain why variation is important. How variations arise in organisms?
10. Give one example of acquired and inherited traits.
11. Explain monohybrid cross with an example.
12. Describe the inheritance of sex in humans.
13. Explain the difference between dominant and recessive traits.
14. Describe Mendel's experiment on dihybrid cross.
15. Describe sex determination in humans.
16. Discuss the role of DNA in inheritance.
17. Discuss Mendel's laws of inheritance with examples.

Chapter 9 – Light: Reflection and Refraction

1. State the laws of reflection. Why does refraction occur?
2. What is the focal length of a plane mirror?
3. Define refractive index.
4. What happens to the speed , wavelength & frequency of light when it enters a denser medium?
5. Differentiate between concave and convex mirror (any two points).
6. Why does a pencil appear bent in water?
7. Draw a ray diagram for the image formed by a concave mirror when the object is at infinity.
8. State Snell's law of refraction.
9. Draw ray diagrams to show the image formation by a convex lens when the object is at-
   (a) between F and 2F. (b) at 2F,
10. Explain the uses of concave mirrors and convex mirror in daily life.
11. Describe the image formed by a concave & Convex lens and mirror for various position of objects. Mention the position, size, nature of image formed in each case.
12. A concave mirror has a focal length of 15 cm. Find the position of the image when the object is placed 30 cm from the mirror.
13. Explain the formation of a rainbow using refraction and reflection.
14. Define Power of lens. What is unit of Power. Find the power of convex lens of focal length 25cm. Will the power be positive or negative?

Chapter 10 – The Human Eye and the Colourful World

1. What is the function of the iris in the human eye?
2. Name the defect of vision in which a person cannot see distant objects clearly.
3. State the cause of dispersion of white light by a glass prism.
4. What is the least distance of distinct vision for a normal eye?
5. Name the phenomenon responsible for the twinkling of stars.
6. Differentiate between myopia and hypermetropia.
7. Student sitting on last bench is not able to see blackboard clearly. Name the defect and nature of lens used for its correction.
8. Why do stars appear higher than they actually are?
9. What is the function of ciliary muscles in the eye?
10. State the cause of scattering of light.
11. Explain why the sky appears blue.
12. Draw a labelled diagram of the human eye.
13. Explain the formation of a rainbow.
14. Why do we see the sun red at sunrise and sunset?
15. Describe the causes of hypermetropia and its correction.
16. Explain why danger signals are red in colour.
17. Discuss common defects of vision and their correction with ray diagrams.
18. Explain atmospheric refraction and give two examples from daily life.
19. Describe the process of accommodation in the human eye.

Chapter 11 – Electricity

1. State Ohm's law.
2. What is the SI unit of resistance?
3. Define electric power.
4. What happens to resistance when the length of a conductor increases?
5. Write the formula for electrical energy.
6. Differentiate between series and parallel connection.
7. Define potential difference.
8. State the factors affecting resistance of a conductor.
9. Calculate the resistance of a wire if potential difference is 10 V and current is 2 A.
10. Write the commercial unit of electrical energy.
11. Derive the formula for equivalent resistance for resistors in series.
12. Derive the formula for equivalent resistance for resistors in parallel.
13. Explain Joule's law of heating.
14. A 60 W bulb is used for 5 hours daily. Calculate the energy consumed in one month (30 days).
15. Describe the effect of resistance on current. Name the device used to measure current.
16. State and explain Ohm's law with a circuit diagram.
17. Discuss the heating effect of electric current and its application.
18. Derive the formula for electrical power and energy.

Chapter 12 – Magnetic Effects of Electric Current

1. State the right-hand thumb rule.
2. What happens when a current-carrying conductor is placed in a magnetic field?
3. Name the device which converts electrical energy into mechanical energy.
4. Name the SI unit of magnetic field.
5. What type of current is used in household supply in India?

6. Differentiate between AC and DC.
7. What is a solenoid?
8. Write two uses of the magnetic compass.
9. Describe Fleming's left-hand rule.
10. State and explain the right-hand thumb rule.
11. What are the factors affecting the strength of the magnetic field due to a current-carrying solenoid?
12. Discuss the domestic electric circuit with a diagram.
13. Describe the safety features in household circuits.

Chapter 13 – Our Environment

1. What is an ecosystem?
2. Name two abiotic components of the environment.
3. What is a food chain?
4. Name the first trophic level in a food chain.
5. Give one example of a decomposer.
6. Differentiate between biodegradable and non-biodegradable substances.
7. What is biomagnification? Explain the concept of biomagnification with an example.
8. Write two differences between food chain and food web.
9. State the role of decomposers in the ecosystem.
10. Give two examples of artificial ecosystems.
11. Explain the flow of energy in an ecosystem.
12. Describe the ozone layer and its importance.
13. What are the effects of ozone layer depletion?
14. Explain the 3Rs to save the environment.
15. Explain why energy flow in an ecosystem is unidirectional.
16. Discuss the problems caused by the accumulation of non-biodegradable substances.
17. Describe a food web with a neat diagram.

PM SHRI KENDRIYA VIDYALAYA NO.1 SAGAR (M.P.)

WORK SHEET

CLASS – X (Science) **UNIT IV : EFFECTS OF CURRENT (13 Marks)**

1. Charge of electron =…….

Electric Current :

…….

Unit of Current:

2. No. of electron in one coulomb of charge =

……..

……..

……

3. What is electric potential?

Ans. ……..

……

4. Electric potential is a scalar or vector?

Ans. ……

5. The resistance of the ideal voltmeter is?

Ans. ……..

6. What is S.I. unit of charge?

Ans. ……

7. State ohm's law.

Ans. ……..

……

……

8. Draw the circuit diagram of ohm's law.

Ans. ……

9. Plot a graph between V and I.

Show ohmic, non ohmic region

10. State the factors affecting the resistance of conductor.

1. ……

2……

3……

4. ……

……

11.HEATING EFFECT OF CURRENT :

……

……

……

Applications in Daily life:

……

……

12. Draw the circuit diagram for series combination of resistance.

Ans.

Applications in Daily life:

13. What is an electric power?

Ans. ……

……

……

Relation between P.V,I and R

14. What is resistivity?

Ans. ……..

……

……

……

……

Write the S.I. unit of resistivity.

Ans. ……

15. Draw the circuit diagram for parallel combination of resistance.

Ans.

Applications in Daily life:

16. S.I. unit of power

……

Practical unit of power.

……

Commercial unit of energy.

……

1kwh = ……

Magnetic Effects of Current:		
1. State any three properties of magnetic line of force. 1……. ……. 2……. ……. 3……. …….	2. Draw the diagram of magnetic line of force due to a straight current carrying conductor. Ans.	3. Draw the magnetic line of force due to circular current carrying coil. Ans.
4. Draw the magnetic line of force due to current carrying solenoid. Ans.	5.Explain principle of motor. Ans. ……. …… …….. …… Draw the diagram of electric motor. Ans.	6. What is Force on Current Carrying Conductor in Magnetic field. State Fleming's left hand rule. Ans. …….. …….. …… …… …… 7. State right hand thumb rule. Ans. …… …….. …… ……
Direct Current: …… …… ……	Alternating Current : …… …… …… Frequency of AC: …… ……	10. State Fleming's right hand rule. Ans. …… …… …… ……
Disadvantages of DC: …… …… …… Advantages of AC: …… …… …… ……	Domestic Electric Circuits: …… …… ……	Safety devices: Fuse:…… …… Earthing:…… …… Short circuiting: …… …… …… Overloading: …… …… ……

PM SHRI KENDRIYA VIDYALAYA NO.1 SAGAR (M.P.)

WORK SHEET

CLASS – X (Science) **UNIT III : NATURAL PHENOMENA (12 Marks)**

What is Reflection of Light?

.....

- **Focus:**.....
- **Radius of Curvature**.....
- **Relation between F and R**.....
- **Principal** Axis.....

What is Refraction of Light?.....

Cause of Refraction : Refraction is due to .....

Laws of Refraction: 1. The.....ray, ...ray and .....lie on .....

2.The ratio of .....and .....is ..... called.....

Lens formula:	**Magnification:**	**Power of Lens:** **Unit of Power of lens:**

Image formation (Real/Virtual , Small/Same size/Magnified, Erect/Inverted) **Magnification** (m=1, less than1, more than1)

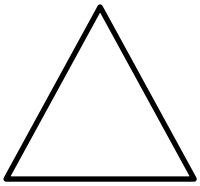
Applications of Spherical Mirrors and Lenses :

Convex Mirror:	**Concave Mirror:**	**Convex Lens:**	**Concave Lens:**
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....
m.....	**m**.....	**m**.....	**m**.....
Applications:	Applications:	Applications:	Applications:
.....	.....	.....	.....
.....	.....	.....	.....
.....	.....	.....	.....

Human Eye :
Lens is.....
Image formed is
.....

Defects of Vision	**Effect**	**Remedy**	**Defected eye**	**Corrected Eye**
Myopia **Short sightedness**	Not able to see .....objects clearly.	**.....lens**		
	Not able to see .....objects clearly.	**.....lens**		
	Not able to see .....objects clearly.	**.....lens**		

Show **Refraction of Light** through a prism. Mark angle of deviation. Which colour has maximum deviation?



What is **Dispersion of Light**?

.....

.....

.....

.....

What is cause of dispersion of light?

.....

.....

.....

Give examples of dispersion of Light.

.....

.....

What is **Scattering of Light**?

.....

.....

.....

.....

.....

What is cause of Scattering of light?

.....

.....

- **..... colour is least scattered**
- **..... colour is maximum scattered.**

Give examples/applications of scattering of Light

.....

SOCIAL SCIENCE

QUESTIONS BANK

HISTORY

(Rise of Nationalism in Europe)

1. Explain the measures and practices introduced by the French revolutionaries to create a sense of collective identity amongst the French people.
2. How would you evaluate Napoleon as an administrator who created a more rational and efficient system? Elucidate with suitable examples.
3. What was the main aim of the Treaty of Vienna 1815? What were its main provisions?
4. "Like Germany, Italy too had a long history of political fragmentation." Explain.
5. Elaborate on the statement: "In Britain, the formation of the nation-state was not the result of a sudden upheaval or revolution."
6. Briefly trace the geographical and ethnic variations of the Balkans region. Why did this region become politically very explosive?
7. Highlight the role of Otto Von Bismarck in the making of Germany.

(Nationalism in India)

8. How did the First World War help in the growth of the nationalist movement in India?
9. Why did Gandhiji start the Non-Cooperation Movement? Explain.
10. Describe the Jallianwala Bagh incident.
11. Explain the role of the middle classes in the Non-Cooperation Movement in the cities.
12. How did plantation workers interpret the meaning of Swaraj and how did they respond to the call of the Non-Cooperation movement?
13. Why did different social classes and groups participate in the Civil Disobedience Movement? (Rich peasants, poor peasants, business class, industrial working class, women)
14. How did people belonging to different communities, regions, or language groups develop a sense of collective belonging in 19th-century India?

(The making of Global World)

15. "The silk routes are a good example of pre-modern trade and cultural links between distant parts of the world." Explain with examples.
16. Illustrate with examples that food offers many opportunities for long-distance cultural exchange.
17. Justify the statement: "The most powerful weapon of the Spanish conqueror was not a conventional military weapon at all."
18. Why did Europeans flee to America in the 19th century?

(Print culture and Modern world)

19. "The production of handwritten manuscripts could not satisfy the ever-increasing demand for books." Give reasons.
20. Support the statement that print culture created the conditions within which the French Revolution occurred.
21. Provide evidence to support the claim that print culture had a significant impact on the social lives of women in India.
22. Explain the effects of print culture in the religious sphere in early modern Europe.

CIVICS

(Power sharing)

1. "Sharing of powers makes a country more powerful and united." Justify the statement.
2. Differentiate between horizontal and vertical division of powers.
3. What is power sharing? Why is it desirable? (Prudential and moral reasons)
4. What majoritarian measures were adopted by the Sri Lankan Government to establish Sinhala supremacy?

(Federalism)

5. State the main features of federalism.
6. Differentiate between the 'Coming Together Federation' and 'Holding Together Federation' with examples.
7. Which provisions of the Indian Constitution make India a full-fledged federation?
8. Explain the provisions made towards decentralization in India after the 1992 amendment.

(Gender Religion and Caste)

9. Mention the constitutional provisions that make India a secular state.
10. What are the various forms that caste takes in politics?
11. How has the caste system undergone changes in modern India?

(Political Parties)

12. What is a political party? What are the main components of political parties?
13. Examine the role of political parties in a democratic country.
14. Explain the functions of the opposition parties.
15. What is a multi-party system? Why has this system evolved in India?
16. What challenges do political parties face in a democracy?
17. What recent efforts have been taken to reform political parties and their leaders?
18. Suggest and explain ways to reform political parties in India.

(Outcome of Democracy)

19. What are the common features of democracies?
20. How does a democracy ensure accountable, responsive, and legitimate government?
21. Why is democracy considered a better form of government than dictatorship?
22. "Democracy accommodates social diversities." Support the statement with examples.

GEOGRAPHY

(Resources and Development)

1. Write any three human activities responsible for land degradation in India.
2. Suggest and explain ways to protect land from degradation.
3. Distinguish between Khadar and Bangar soil.
4. Define soil erosion. What are the types and causes of soil erosion in India?
5. Suggest methods of soil conservation suitable to Indian conditions.

(Forest and wildlife Resources)

6. Classify the types of forests found in India.
7. Describe the role of the community in forest and wildlife conservation.

(Water Resources)

8. Why have multipurpose projects and large dams come under great scrutiny and opposition?
9. Justify the statement that intensive industrialization and urbanization exert pressure on freshwater resources.
10. Who proclaimed dams as the "temples of modern India"? Why?
11. Describe traditional methods of rainwater harvesting.
12. Compare the advantages and disadvantages of multipurpose river valley projects.

(Agriculture)

13. State the characteristics of primitive subsistence farming.
14. What is plantation farming? Describe its characteristics.
15. Explain the technical and institutional reforms in Indian agriculture in the 1980s and 1990s.
16. Distinguish between commercial and subsistence farming.

(Mineral and Energy Resources)

17. How has mining become a problem for workers and the environment?
18. Why should we conserve minerals? Suggest ways to conserve them.
19. Explain the difference between conventional and non-conventional sources of energy.
20. Why should we adopt a cautious approach to the judicious use of energy resources?
21. Suggest ways to conserve energy resources in India.

(Manufacturing Industries)

22. "The development process of India has experienced transformation due to the significant influence of Information Technology (IT) and Electronic Industry." Explain the statement with examples.
23. Why does the textile industry occupy a unique position in the Indian economy? Explain.
24. Explain any three ways through which industrial pollution can be reduced.
25. "Agriculture and industry move hand in hand." Support the statement with examples.
26. Why is the iron and steel industry called the 'basic industry'? Explain.
27. "Manufacturing sector is considered as the backbone of economic development of a country." Support the statement with examples.
28. Describe any five factors responsible for the concentration of iron and steel industry in and around Chota Nagpur Plateau region.
29. Mention any two factors that have contributed to a healthy growth of the automobile industry in India. Name two centres where the industry is located.

ECONOMICS

(Development)

1. Why do different people have different notions of development?
2. "Conflicting goals can be development goals." Elaborate with examples.
3. How are the development goals and aspirations of landless rural labourers, prosperous farmers, and poor farmers different?
4. Give examples to prove that there are other important development goals than income.
5. How is the issue of sustainability important for development? Give examples.

(Sectors of Indian Economy)

6. Justify: "Tertiary sector is playing a significant role in the development of the Indian economy."
7. How can more job opportunities be created in rural areas?
8. In what ways can employment be increased in urban areas?
9. Explain MGNREGA 2005.
10. Compare the employment conditions in organized and unorganized sectors.
11. Distinguish between the public and private sectors.

(Money and Credit)

12. What is money? Why is it called a medium of exchange?
13. Explain the significance of the Reserve Bank of India in the Indian economy.
14. Compare and contrast formal and informal sources of credit. Suggest an alternative for rural poor.
15. Why do most rural households still depend on informal sources of credit?
16. Why do we need to expand formal sources of credit in India?
17. Explain the role of Self-Help Groups (SHGs) in rural society.

(Globalisation and the Indian Economy)

18. What is globalization? Describe the role of MNCs in promoting globalization.
19. Describe the role of technology in promoting globalization.
20. What is a trade barrier? Why did India put up trade barriers after independence?
21. Define liberalization. Why did India adopt this policy in 1991?

ENGLISH LANGUAGE AND LITERATURE - Code No. 184
SAMPLE QUESTION PAPER
CLASS-X- (2025-26)

Time allowed: 3 Hrs. **Maximum Marks: 80**

General Instructions:

Read the instructions carefully and 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. **10**

1 The growing preference for indigenous craft items is a welcome trend in today's globalised world, where mass-produced goods often dominate markets. These handcrafted products, rooted in the cultural and artistic traditions of their regions, offer more than just aesthetic appeal. They symbolise sustainability, support local economies, and preserve the heritage of diverse communities.

2 One of the primary reasons for choosing indigenous crafts is their eco-friendliness. Unlike factory-made products, most traditional crafts are created using natural, locally sourced materials. Artisans often employ time-tested methods that minimise waste and avoid harmful industrial processes. For example, pottery made from local clay, handwoven textiles using organic dyes, and bamboo-based crafts all have a much lower environmental footprint compared to their machine-made counterparts. By opting for these items, consumers indirectly contribute to reducing pollution and promoting sustainable practices.

3 Supporting indigenous crafts also strengthens local economies. Many artisans depend solely on their craft for livelihood, often working in small communities where opportunities for other forms of employment are limited. When people purchase their products, it provides a direct income to these artisans, empowering them and encouraging their craftsmanship. Initiatives like fair trade further ensure that artisans receive fair wages, fostering economic stability within their communities.

4 Moreover, indigenous craft items help preserve cultural heritage. Every handcrafted product carries a story—a glimpse into the traditions, beliefs, and skills passed down through generations. In India, whether it's paintings, terracotta jewellery, sculptures, athangudi tiles, mud work frames or many others, each item reflects the unique identity of

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its region. By choosing these crafts, people not only appreciate the artistry but also help keep these traditions alive in an era where cultural homogenisation threatens diversity.

5 In addition to their economic and cultural value, indigenous crafts add a personal touch to homes and wardrobes. Unlike mass-produced items, which often lack individuality, handcrafted products are unique. Each piece bears the imprint of the artisan's effort, creativity, and dedication, making it special for the buyer.

6 However, the preference for indigenous crafts requires sustained efforts to thrive. Governments, organisations, and consumers all have roles to play. Policies that promote local craftsmanship, provide training to artisans, and create global platforms for showcasing their work can boost the visibility and demand for these products. Consumers, too, must actively seek out and invest in handmade crafts rather than opting for cheaper, factory-made alternatives. Choosing indigenous craft items is a meaningful step toward a more sustainable and culturally enriched world.

Created for academic usage / 403 words

Answer the following questions, based on the passage above.

I Why is the growing preference for indigenous craft items described as a 'welcome trend' in paragraph 1? 1

II According to paragraph 1, the indigenous craft items have all of the following qualities EXCEPT being: 1

A. handcrafted products
B. rooted in artistic traditions
C. aesthetic in appeal
D. easily accessible

III Complete the following by selecting the correct option from those given in the brackets. 1
The usage of locally sourced materials makes the indigenous crafts _____ (traditional / eco-friendly). (Paragraph 2)

IV Select the option that is True from (a)-(c) given for what the phrase, 'time-tested methods' suggests in paragraph 2. 1

A. Artisans use traditional techniques that have been refined and proven effective over generations
B. Artisans use outdated practices that are no longer relevant in today's commercial markets.
C. Artisans follow techniques that prioritise speed and mass production over craftsmanship.

V Complete the analogy by selecting one of the two correct options (a), (b) 1
fair trade: fair wages:: _____ : _____ (Paragraph 3)

(a) employment: job security (b) mass production : reduced prices

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VI Why is supporting indigenous crafts considered an effective way to improve the economic conditions of small communities? (Paragraph 3) 2

VII What are the main ideas of paragraph 4 and paragraph 5? 1

i) Choosing indigenous crafts helps preserve cultural heritage
ii) Handcrafted products lack individuality.
iii) Indigenous crafts reflect the artisan's creativity.
iv) Indigenous crafts promote uniformity by erasing regional differences in artistic traditions.
v) Cultural homogenisation encourages people to choose indigenous crafts over mass-produced goods.

Select the correct option.

Options	Main idea of paragraph 4	Main idea of paragraph 5
A.	ii	iv
B.	v	ii
C.	i	iii
D.	iv	ii

VIII Why is it important for consumers to take an active role alongside government and organisations in sustaining indigenous crafts? (Paragraph 6) 2

2. Read the following passage. **10**

1 A recent study conducted across two age groups—students aged 10–12 and 13–16—explored their preferences for ballpoint and micro-tip pens for various writing activities such as note-taking, examinations, and personal writing. The study aimed to understand trends in writing habits and the factors influencing pen selection among students.

2 The results revealed distinct patterns based on age groups and writing purposes. Among students aged 10–12, 65% preferred ballpoint pens for note-taking, citing ease of use and affordability as key factors. However, 35% opted for micro-tip pens, valuing their precision and smooth writing. For examinations, ballpoint pens were the overwhelming choice, with 78% favouring them for their speed and reliability, while 22% stuck with micro-tip pens, appreciating their fine control.

3 In the 13–16 age group, preferences shifted slightly. For note-taking, 60% favoured micro-tip pens, highlighting their ability to produce neat, legible notes, while 40% continued to use ballpoint pens. During examinations, however, 70% still relied on ballpoint pens, indicating their consistency under time constraints. When it came to personal writing, such as journalling or creative tasks, 58% in this group chose micro-tip pens, appreciating the aesthetic appeal of finer lines, while 42% stuck with ballpoint pens for their convenience.

4 These findings point to the importance of understanding age-specific preferences and task requirements, enabling manufacturers to innovate products. Manufacturers could further explore incorporating hybrid features, such as pens offering the speed of ballpoint pens with the precision of micro-tip pens, to cater to a wider range of student preferences.

Created for academic usage / 250 words

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Answer the following questions, based on the passage above

I Why did the study most likely focus on the two specific age groups of 10–12 and 13–16? (Paragraph 1) 1

This is so because these age groups ____.

A. represent the largest population of growing students.
B. are when students develop and refine their writing habits.
C. were the easiest to survey across various schools.
D. have a natural preference for ballpoint pens.

II Identify the phrase in paragraph 1 that conveys the writer's reference to the patterns or preferences observed in how students use pens for various writing tasks. 1

III Complete the following by selecting the correct option from those given in the brackets. (Paragraph 2) 1

Geetha, aged 11, wishes to complete her practical file neatly, ensuring her work is legible and appealing. She is most likely to choose a micro-tip pen for this task because the _____ (speed / precision) offered by this type of pen helps produce tidy work.

IV What does the writer mean by ‘affordability’ while citing the high percentage of ball point pen usage? (Paragraph 2) 1

V Complete the following with the correct option.

When the writer says ‘distinct patterns’ in the line ‘The results revealed distinct patterns based on age groups and writing purposes,’ of paragraph 3, s/he means that _____. 1

A. students in both age groups use pens in the same way for all the listed purposes.
B. the preferences for pens varied according to the students' age and the type of writing task.
C. only micro-tip pens were popular across all writing tasks in the 13-16 age group.
D. students of all age groups preferred ballpoint pens for completing creative writing tasks.

VI Complete the following appropriately.

The one likely reason why more than 40% of students still chose ballpoint pens for creative tasks, even though micro-tip pens are better suited for such activities is _____. (Paragraph 3) 1

VII How are ‘aesthetic appeal’ and ‘finer lines’ connected? (Paragraph 3) 1

VIII Elaborate how hybrid features in pens would lead to a commercially viable product. (Paragraph 4) 2

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IX Fill in the blank with ONE suitable word. (Paragraph 4) 1

Understanding age-specific preferences helps manufacturers design products that cater to the unique needs of different age groups, ensuring their products are both _____ as well as appealing.

SECTION B: WRITING SKILLS & GRAMMAR (20 marks)

GRAMMAR 10

3. Complete **any ten** of twelve of the following tasks, as directed.

I Fill in the blank by using the correct form of the word in the bracket for the given portion of a market research: 1

The special subscriptions of newspapers are well _____(illustrate), to make reading interesting for school students.

II Identify the error and write the correction in the given sentence from a life skills' book. 1

The road to success is not the bed of roses.

Use the given format.

Error	Correction

III Fill in the blank with the correct form of verb given in the brackets. 1

I'm so happy to see my plants again! They _____ (grow) so much since I last saw them.

IV Read the given statement. 1

They said to the guide, "We'd love to come here again next year."

Report it correctly by completing the following.
They told the guide that _____.

V Fill in the blank by choosing the correct option to complete the conclusion of a letter of placing order. 1

There would be no compromise _____the quality of items supplied.

A. regards
B. regard
C. regardless
D. regarding

VI Report the following by completing the sentence correctly. 1

"Don't try mending the trousers yourself," she warned him.

She warned him _____.

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VII Complete the given opinion by filling the blank with correct option. 1

The experience of watching the movie left me _____ grateful for knowing the importance of being empathetic to others.

A. having felt
B. feeling
C. felt
D. feels

VIII The given question has an error. Select the option that correctly identifies the error and the correction. 1

Which kind of person does something like that?

No.	Error	Correction
A.	Which	What
B.	kind	kinds
C.	something	somethings
D.	that	this

1

IX Report the following question.

She said to her sister, “Are you joining us for lunch today?”

X Fill in the blank with the correct option from those given in the brackets. 1

Everyone is saying that Farhana’s chances are bright in the upcoming tournament and she _____ (must / may) become the youngest football player ever.

XI Fill in the blank to complete the sentence in a teacher’s diary by choosing the correct option. 1

_____ student in the class submitted their assignment on time.

A. All
B. One
C. Every
D. A

XII Choose the correct option to fill the blank. 1

I looked inside the bucket and saw there was _____water in it, so they had to add more to use.

A. little
B. any
C. few
D. least

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WRITING

NOTE: *All details presented in the questions in writing section are imaginary and created for assessment purpose.*

4A As Vaibhav, the Club in-charge of your school's Ecology Club, you strongly believe in the importance of starting Eco-Clubs in schools in the rural areas surrounding your city to promote the preservation and conservation of nature. Write a letter to the Education Secretary of your city, in about 120 words, highlighting the significance of ecological awareness and suggesting the need to establish Eco-Clubs in these schools. **5**

OR

4B As Amitha, the Vice Head Girl of Vidya Mandir, you are aware of the increasing prevalence of cyber-attacks and unauthorised exploitation of systems, networks, and technologies affecting individuals across all demographics. Write a letter to the editor of a national daily in about 120 words, stressing the urgent need to promote digital security among all age groups. Highlight the challenges posed by cyber threats and propose practical solutions to address this growing issue**.** **5**

5A You are the President of the Debate Society in your school. Two guest speakers --Mr. Rajan Sharma and Ms. Meera Kapoor, have written to express their interest in participating in your upcoming debate competition. Below are excerpts from their letters. **5**

Excerpt 1

...I am thrilled to express my interest in participating as a guest speaker at your school's debate competition. With over 10 years of experience as a public speaker and debate coach, I have guided numerous students to success in national-level competitions. My approach focuses on encouraging critical thinking and fostering a passion for debating. I have previously spoken at various schools and universities, often receiving positive feedback for my engaging sessions and practical insights. I believe my experience and knowledge can inspire and empower your students to excel in debating.

Best regards

Mr. Rajan Sharma

Excerpt 2:

...It would be a privilege to participate as a guest speaker at your school's upcoming debate competition. I have participated in international debate forums and have won accolades for my arguments on global and social issues. My strength lies in connecting with young audiences and making debates relevant to real-world scenarios. I also emphasise how debating can improve public speaking, confidence, and interpersonal skills. I look forward to sharing my journey and experiences with your students to inspire them to use debating as a tool for personal growth.

Yours sincerely

Ms. Meera Kapoor

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Analyse the information in a paragraph, justifying which guest speaker would be a better choice. Consider factors such as experience, relevance to the topic, and audience engagement.

OR

5B Jaspreet, class X, is known for her creativity, excellent communication skills, and ability to think outside the box. However, she sometimes struggles with time management and prefers collaborative efforts over working solo. She has been assigned an art-integrated project presentation and must choose a partner from Sunaina, Tabassum, and Alice. Below are the profiles of the three candidates. **5**

Sunaina: Sunaina is highly disciplined and excels in meeting deadlines. She is known for her strong organisational skills and ability to handle multiple tasks efficiently. However, she is slightly reserved and prefers working in structured, predictable environments.
Tabassum: Tabassum is enthusiastic and spontaneous, with a talent for generating unique ideas. She is an excellent artist and thrives in creative settings. However, she occasionally struggles to stay focused on tasks and complete them on time.
Alice: Alice is confident and articulate, with a flair for delivering polished presentations. She is detail-oriented and ensures that the final product is of high quality. However, she sometimes prefers to take control and may overlook collaborative efforts.

Based on the features of each candidate, analyse and decide who would be the best partner for Jaspreet. Consider aspects such as complementary strengths, teamwork, and the project's requirements.

SECTION D
LITERATURE TEXTBOOK (40 marks)

6 Read the given extracts A and B and answer ANY ONE of the two. **5**

A. He just felt a bit dizzy Then he flapped his wings once and he soared upwards. “Ga, ga, ga, Ga, ga, ga, Gaw-col-ah,” his mother swooped past him, her wings making a loud noise. He answered her with another scream. Then his father flew over him screaming. He saw his two brothers and his sister flying around him curvetting and banking and soaring and diving. Then he completely forgot that he had not always been able to fly, and commended himself to dive and soar and curve, shrieking shrilly.

(Two Stories About Flying - First Flight)

I Contradict the view that the young seagull celebrated his maiden flight alone. 2

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II Which of the following statements best explains the young seagull's experience as he starts flying? 1

a) The young seagull immediately mastered flying and was no longer afraid.
b) The young seagull gradually gained confidence and joined his family in the air.

III What can be inferred about the young seagull's emotional state after flying with his family? 1

IV Read the following sound and movement words. 1

i) flapped
ii) shrieking
iii) swooped
iv) soared
v) screaming

Select the option that correctly categorises (i) –(v) into sound and movement words.

No.	Sound	Movement
A	i, ii, v	iii, iv
B	iv, v	i, ii, iii
C	ii, v	i, iii, iv
D	v	i, ii, iii, iv

OR

B. Historian: …You haven't heard about the Martian invasion of 2040? Tsk, tsk. What do they teach children nowadays? Well, you know, the invasion never really happened, because a single book stopped it. What was the book, you ask? A noble encyclopaedia? A tome about rockets and missiles? A secret file from outer space? No, it was none of those. It was — but here, let me turn on the historiscope and show you what happened many centuries ago, in 2040. *(She turns on projector, and points it left. Spotlight on Historian goes out...)*

(The Book That saved the Earth)

I What does the pause indicated by the dash in the line 'It was — but here, let me turn on the historiscope and show you' convey? 1

i) a sense of impatience and frustration
ii) a point of suspense and anticipation
iii) a moment of confusion and hesitation
iv) a sudden shift to lightheartedness
v) a reflective moment of deep thought

A. i, ii, v
B. Only ii
C. iii and iv
D. Only v

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II How do the stage directions, such as 'Historian turns on projector' and 'Spotlight on Historian goes out,' contribute to the atmosphere and understanding of the scene in this part of the play? 2

III Select the option that correctly completes the following. 1

The Historian dismisses the noble encyclopaedia and rockets because she wants to _____

a) convey the importance of scientific knowledge and military power in stopping the invasion.
b) stress the surprising and unexpected nature of the book that stopped the invasion.

IV What emotion is the Historian most likely conveying with the phrase 'Tsk, tsk'? 1

7 Read the given extracts A and B and answer ANY ONE of the two. 5

A. 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 What emotions are most appropriately conveyed by the phrase 'desperate eyes' and 'epistemology of loss'? 1

i) despair
ii) anger
iii) frustration
iv) confusion
v) helplessness

Select the correct option.

A. i, iii
B. i, iv, v
C. ii, iii, iv
D. iv, v

II What does the phrase 'how to stand up' suggest about the boy's emotional growth? 2

III Which phrase from the extract conveys the poet's idea that loss is universal? 1

IV Fill in the blank with a phrase to suitably complete the sentence. 1

The loss of his ball symbolises _____ in life.

OR

B. Or if some time when roaming round,
A noble wild beast greets you,
With black stripes on a yellow ground,
Just notice if he eats you.

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This simple rule may help you learn
The Bengal Tiger to discern.

(*How to tell Wild Animals*)

I What does the poet imply by referring to the Bengal Tiger as a 'noble wild beast'? 1

A. The tiger is majestic and dignified despite its ferocity.
B. The tiger is kind and considerate toward humans.
C. The tiger has a royal lineage and should be revered.
D. The tiger is a symbol of fear and destruction.

II Complete the following suitably. 1

The word 'ground' in the line 'With black stripes on a yellow ground' refers to _____.

III How does the poet use humour in the description of the Bengal Tiger? 2

IV Identify the phrase in the poem that is advisory in nature. 1

8 Answer ANY FOUR of the following five questions, in about 50 words each. 4x3=12

I Otters are known for their peculiar behavioural traits. Support this statement with reference to any two traits mentioned in 'Mijbil the Otter.' 3

II How does the use of repetition in the poem 'Amanda!' highlight the speaker's expectations and Amanda's responses? 3

III How can Nelson Mandela's vision of 'liberating both the oppressed and the oppressor' be applied in modern-day societies to address issues of inequality and discrimination? (Nelson Mandela – Long Walk to Freedom) 3

IV How does the line 'and then moves on' reflect the transient nature of the fog thereby contributing to the poem's deeper message about life's impermanence? (Fog) 3

V How does Chubukov's reaction to Lomov's marriage proposal reflect his priorities and values? (The Proposal) 3

9 Answer ANY TWO of the following three questions, in about 40-50 words. 2x3=6

I How does 'The Necklace' illustrate the significance of honesty as the key element for leading a happy and stress-free life? 3

II Briefly evaluate the validity of the adage 'Values are caught, not taught', in the context of the relationship between Anil and Hari Singh in 'The Thief's Story'. 3

III Griffin's experiences moments of comfort and normalcy while being invisible. How do these fleeting moments impact his sense of identity and his actions 3

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throughout 'Footprints Without Feet'?

10 Answer ANY ONE of the following two questions, in about 100-120 words 1 x 6

A. How does literature like ‘The Baker from Goa,’ ‘Coorg,’ and ‘Tea from Assam’ contribute to promoting tourism and raising awareness about regional cultures and traditions? 6

OR

B. The poems, ‘The Trees’ and ‘A Tiger in the Zoo’ resonate the theme of importance of freedom and the desire to break free from any kind of dominance. Examine. 6

11 Answer ANY ONE of the following two questions, in about 100-120 words. 1 x 6

A. How does the author use the narrative technique of misdirection in 'The Midnight Visitor', to enhance the suspense and the story’s unexpected ending? 6

OR

B. Comment critically on the role of the Surgery in the ‘The Triumph of Surgery’. 6

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English Language and Literature -Code No. 184
MARKING SCHEME
CLASS-X- (2025-26)

General Instructions: -

1. *The Marking Scheme carries only suggested value points for the answers / sample answers. The value points are in the nature of Guidelines only and do not constitute the complete answer. The students can have their own expression and if the expression is correct, then due marks should be awarded accordingly.*
2. *If a student has attempted an extra question, answer of the question deserving more marks should be retained and the other answer scored out with a note "Extra Question".*
3. *If more than one option is mentioned in the answer of multiple choice questions, then no marks to be awarded.*

A: READING (20 marks)		
Discursive Passage		
1.	**Answer the following questions, based on the passage above.**	**10**
I	because it counters the dominance of mass-produced goods, supports sustainability, and helps preserve cultural and artistic traditions.	1
II	D. easily accessible	1
III	eco-friendly	1
IV	(a) Artisans use traditional techniques that have been refined and proven effective over generations	1
V	(a) employment : job security [(a) is correct. Just as fair trade ensures fair wages, employment aims to provide job security and both relationships focus on fairness and stability. Mass production often prioritises efficiency and cost reduction, sometimes at the expense of fairness, environmental responsibility, or the well-being of workers. Thus, (b) does not match the context of the analogy.]	1
VI	Supporting indigenous crafts improves the economic conditions of small communities by providing artisans with a stable source of income. This empowers them to sustain their livelihoods and encourages the continuation of their craftsmanship. Additionally, it reduces economic challenges in areas where other employment opportunities are limited, creating a positive cycle of growth within these communities.	2

VII	C. i -iii [Paragraph 4 emphasises the preservation of cultural heritage (i), while paragraph 5 highlights the uniqueness and creativity reflected in indigenous crafts (iii).]	1
VIII	While governments and organisations can create supportive policies and platforms, consumers play a crucial role in driving demand for indigenous crafts. Without consumer interest and investment, these efforts may fail to translate into tangible benefits for artisans. Consumers' choices directly impact the visibility and survival of handmade crafts, making their active participation essential for creating a sustainable market and preserving cultural heritage.	2
	Case-based Passage	
2.	**Answer the following questions, based on the passage above**	**10**
I	B. are when students develop and refine their writing habits. [Option B is the most likely because the study aims to explore writing preferences, which are likely to evolve during these developmental stages.]	1
II	'trends in writing habits'	1
III	precision	1
IV	By 'affordability,' the writer refers to the lower cost of ballpoint pens compared to micro-tip pens, making them accessible and budget-friendly for students.	1
V	B. The preferences for pens varied according to the students' age and the type of writing task.	1
VI	Ballpoints do not dry out quickly unlike micro-tips / Ballpoints work on a variety of surfaces unlike microtips / Ballpoints are less likely to smudge unlike microtips/ Ballpoints pens are usually more affordable	1
VII	The 'aesthetic appeal' is closely connected to 'finer lines' because finer lines create neat, elegant, and visually pleasing writing.	1
VIII	Hybrid features in pens, such as combining the speed and reliability of ballpoint pens with the precision and aesthetic appeal of micro-tip pens, would likely result in a commercially viable product as such pens would cater to a broader demographic, meeting the needs of students across different age groups and writing tasks. This would capitalise on the growing demand for versatile and functional writing tools. Which would enhance its commercial success.	2
IX	functional / useful	1

	SECTION B: WRITING SKILLS & GRAMMAR (20 marks)	
	GRAMMAR (10 marks)	
3.	Complete **any ten** of twelve of the following tasks, as directed.	**10x1=10**
I	illustrated	1
II	Error – the ; Correction - a	1
III	have grown	1
IV	...they would love to go there again the following year	1
V	D. regarding	1
VI	...not to try mending the trousers himself	1
VII	B. feeling	1
VIII	A. Error -Which ; Correction - What	1
IX	She asked her sister if she was joining them for lunch that day.	1
X	may	1
XI	C. Every	1
XII	A. little	1
	WRITING SKILLS (10 marks)	
4	**Format-1 Content-2 Organisation of ideas-1 Accuracy-1**	**1X5=5**
A.	(The response may be created from the following content points) ▪ Significance of Ecological Awareness: → the role of ecological awareness in protecting natural resources. → how it can foster responsible environmental behaviour in students from an early age. → the need for collective action to address pressing environmental issues such as deforestation, pollution, and loss of biodiversity. ▪ Proposal to Start Eco-Clubs in Rural Schools: → establishing Eco-Clubs in rural schools to engage students in practical environmental activities.	

	→ how these clubs can organise tree plantations, cleanliness drives, and awareness campaigns. → the educational benefits of Eco-Clubs in building future environmentally conscious citizens. ▪ Support and Resources Needed: → Request support from the Education Department in the form of resources, funding, and guidance to set up and run the Eco-Clubs. → Propose collaborations with NGOs or environmental organizations to support these initiatives.			
	OR			
B.	(The response may be created from the following content points) ▪ Challenges Posed by Cyber Threats: → the risks of identity theft, financial fraud, and data breaches. → the vulnerability of children, the elderly, and untrained individuals to phishing scams, malware, and online predators. → how ignorance about digital security increases the impact of these threats. ▪ Urgent Need for Digital Security Awareness: → the importance of educating people about safe online practices and promoting digital hygiene. → the role of schools, workplaces, and community organisations in spreading awareness. ▪ Proposed Practical Solutions: → digital literacy programmes for all age groups. → organising workshops, webinars, and public awareness campaigns on topics like strong password creation, recognising scams, and safe browsing habits. → the implementation of stricter cybersecurity policies by authorities. ▪ Call to Action: → use of the platform of the national daily to raise awareness about digital security. → the need for collaborative efforts between individuals, organisations, and the government to tackle this issue effectively.			
5	**Content - 2**	**Organisation of ideas - 2**	**Accuracy - 1**	**1X5=5**

Note:

- No title
- Analytical writing doesn't require a ‘correct’ answer. All perspectives are valid as long as the reasoning is strong and evidence is used effectively.
- The writer must address the strengths of their chosen candidate and **contrast** them with the other candidate/s’ qualities to highlight why their choice is better, in order for it to be considered an analysis.
- A recommended approach would be to know the specific needs of the event/audience and match them with the strengths of the candidate/s, ensuring a logical / audience-focused approach.

A	Option 1: Based on the letters from Mr. Rajan Sharma and Ms. Meera Kapoor, Ms. Kapoor emerges as the better choice for the guest speaker at the school's debate competition. While both candidates are experienced and skilled, Ms. Kapoor's international accolades and ability to connect debating with real-world scenarios give her a distinct edge. Her focus on making debates relevant to global and social issues aligns well with the interests of high school students, offering them a broader perspective. Although Mr. Sharma has significant experience as a coach and speaker, his approach appears more focused on techniques rather than engaging students with relevant and inspiring real-world examples. Moreover, Ms. Kapoor's emphasis on personal growth through debating resonates with the developmental needs of students. Her global exposure and relatability make her the ideal speaker to inspire and connect with the audience effectively. Option 2: Based on the letters from Mr. Rajan Sharma and Ms. Meera Kapoor, Mr. Rajan emerges as the better choice for the guest speaker at the school's debate competition. With over 10 years of experience as a debate coach and public speaker, Mr. Sharma brings unmatched expertise in nurturing critical thinking and fostering a passion for debating among students. His track record of guiding students to success in national-level competitions demonstrates his ability to deliver practical insights and techniques that directly contribute to debate performance. While Ms. Kapoor's global exposure and focus on real-world relevance are commendable, Mr. Sharma's hands-on experience in coaching students and making them competition-ready seems more aligned with the goals of the Debate Society. Additionally, his experience with school and university-level events ensures that he understands the aspects of connecting with high school audiences.
	OR
B	Option 1: Sunaina emerges as the most appropriate partner for Jaspreet in the art-integrated project presentation as her qualities balance those of Jaspreet's. Jaspreet's creativity and communication skills make her an excellent presenter and idea generator, but her struggles with time management require a partner who can complement her weaknesses. Sunaina's strong organisational skills and discipline ensure that tasks are completed on time and deadlines are met, which is crucial for the success of the project. Although Sunaina is slightly reserved, her preference for structure and predictability aligns well with Jaspreet's collaborative working style, as Jaspreet can take the lead in brainstorming and presenting ideas while Sunaina ensures everything stays on track. While Tabassum is highly creative and spontaneous, her difficulty in staying focused may amplify Jaspreet's challenges with time management, making her less suitable. Alice, on the other hand, excels in polished presentations, but her tendency to dominate and prioritise control may conflict with Jaspreet's collaborative preferences. Option 2: Tabassum would be the best partner for Jaspreet in the art-integrated project presentation as her qualities balance those of Jaspreet's. Jaspreet thrives on creativity and collaboration, and

	Tabassum's enthusiastic and spontaneous personality would complement Jaspreet's innovative thinking. As an excellent artist, Tabassum brings a unique skill set to the project, particularly in the visual and design aspects, which are crucial for an art-integrated presentation. Together, their combined creativity would result in an engaging and visually appealing final product. Although Tabassum occasionally struggles with focus and timely completion of tasks, this can be mitigated by Jaspreet's strong communication skills and preference for teamwork, allowing them to motivate and support each other effectively. In contrast, Sunaina's overly structured and predictable working style may stifle Jaspreet's free-flowing creativity. Similarly, Alice's tendency to take control might conflict with Jaspreet's collaborative approach. Option 3: Alice would be the most suitable partner for Jaspreet in the art-integrated project presentation as her qualities balance those of Jaspreet's. While Jaspreet excels in creativity and collaboration, her struggles with time management can be addressed by Alice's confidence, detail-oriented approach, and ability to deliver polished presentations. Alice's strength in ensuring a high-quality final product complements Jaspreet's talent for generating unique ideas, creating a balance between creative input and execution. Her confidence in public speaking would enhance the presentation aspect of the project, allowing Jaspreet to focus on her creative contributions. Although Sunaina is highly disciplined, her reserved nature may limit the dynamic engagement needed for such a collaborative and artistic endeavour. Tabassum, while creative and spontaneous, might worsen Jaspreet's challenges with time management.	
	SECTION D: LITERATURE TEXTBOOK (40 marks)	
6	Read the given extracts and answer the questions for **any one** of the two, given	**1x5=5**
A	**Prose**	
I	The young seagull did not celebrate his maiden flight alone. His mother and father encouraged him by flying past him and prompting him. Additionally, his siblings, were flying around him, further motivating him. The collective presence of his family made the victory a shared experience rather than a solitary one.	2
II	b) The young seagull gradually gained confidence and joined his family in the air. [wasn't immediate as he felt dizzy initially]	1
III	The young seagull feels a sense of accomplishment and excitement, as he forgets that he was once afraid to fly and embraces the thrill of soaring and diving with his family.	1
IV	C. ii, v (sound) i, iii, iv (movement)	1
	OR	
B	**Prose**	
I	B. Only ii [the pause creates an expectation for the audience, setting the stage for a revelation and keeping them intrigued]	1

II	The stage directions, like turning on the projector and dimming the spotlight, help create a shift in focus and set the tone for the scene. The projector signals a transition from narration to visual storytelling, while the fading spotlight on the Historian reveals the movement toward the next key action or character, heightening the suspense and anticipation of the forthcoming revelation. These technical elements guide the audience's attention and contribute to the play's overall pacing and dramatic effect.	2
III	b) stress the surprising and unexpected nature of the book that stopped the invasion.	1
IV	disappointment / disapproval	1
7	Read the given extracts and answer the questions for ***any one*** of the two, given**.**	**1x5=5**
A.	**Poetry**	
I	B. i, iv, v ['anger' and 'frustration' are less appropriate because the focus is on emotional confusion, helplessness, and the acceptance of loss, rather than a reaction of resistance or blockage. The boy's emotional state is about grappling with a deeper understanding of life's impermanence, rather than lashing out at the loss or the situation.]	1
II	The phrase 'how to stand up' suggests that the boy is learning to confront and cope with the emotional impact of loss. It signifies his emotional growth, as he begins to understand that facing grief is an essential part of life. This realisation helps to teach him to recover from hardship and accept the inevitability of loss.	2
III	'most know'	1
IV	the inevitable hardships / the hardships / the first encounter with grief / the harsh realities / the fleeting nature of joy / the transient nature of material possessions	1
	OR	
B.	**Poetry**	
I	A. The tiger is majestic and dignified despite its ferocity.	1
II	...the background colour of the tiger's coat, which is yellow	1
III	The poet uses humour to present the Bengal Tiger's dangerous nature in a light-hearted way. By describing it as 'noble' but humorously suggesting identification through being eaten, the poet softens the fear associated with the tiger and makes its ferocity entertaining The playful tone and the ironic contradiction between calling the tiger 'noble' and focusing on its ferocity create a humorous effect, making the tiger's dangerous nature seem amusing rather than frightening.	1
IV	'This simple rule may help you learn'	1

	[This is advisory in nature as it offers a guideline / a playful instruction]	
8	Answer **any four** of the following five questions, in about 50 words.	**4x3=12**
Content – 2 Expression – 1 Accuracy – Deduct up to 1 mark from overall		
I	(Any two) ▪ Love for movement in water - Otters cannot tolerate static water. Mijbil overturned bowls, sat in them, or splashed water until it overflowed, ensuring water was always in motion. ▪ Curiosity - Mijbil explored his surroundings keenly, investigating objects and trying to interact with his environment, such as fumbling with taps to turn them on. ▪ Juggling skills - Mijbil could juggle marbles on his belly while lying on his back, displaying dexterity and coordination.	3
II	The repetition highlights the speaker's constant expectations, reinforcing Amanda's lack of freedom and autonomy. The repeated commands like 'Don't bite your nails' highlight the pressure placed on Amanda. In contrast, Amanda's imaginative escapes, which are not repetitive, reflect her desire for independence and freedom, showcasing the tension between external control and her longing for self-expression.	3
III	This vision can be applied in modern societies by fostering dialogue, understanding, and reconciliation between different groups. Addressing inequality requires not only empowering marginalised communities but also educating and transforming the mindsets of those who perpetuate discrimination, breaking the cycle of hatred and prejudice. This dual approach ensures lasting peace and equality.	3
IV	The line symbolises the fleeting and impermanent nature of the fog, paralleling the transient moments in life. Just as the fog quietly arrives, lingers briefly, and disappears, so too do many moments in life that come and go without warning, often leaving a lasting impression or a sense of reflection. This imagery reinforces the poem's theme that, like fog, many experiences are temporary, quietly arriving and departing without notice, leaving behind a sense of mystery and contemplation.	3
V	Chubukov's reaction to Lomov's marriage proposal reflects his opportunistic and materialistic priorities. He enthusiastically embraces the proposal, showing relief and joy, not because of Lomov's love for Natalya but due to the potential benefits of securing a marriage for his daughter with a neighbouring landowner. His exaggerated affection for Lomov, calling him 'my dear fellow,' contrasts sharply with his prior suspicions. This reveals Chubukov's value for a status in society and economic security over genuine emotional connections.	3
9	Answer **any two** of the following three questions, in about 40-50 words.	**2x3=6**
Content – 2 Expression – 1 Accuracy – Deduct up to 1 mark from overall		

I	▪ Matilda's decision to replace the necklace without telling her friend the truth leads to a decade of suffering – how dishonesty can result in unforeseen consequences that affect one's well-being. ▪ The act of lying causes unnecessary stress and anxiety - Matilda and her husband live in constant fear of being found out, which affects their physical and emotional health. ▪ If Matilda had admitted her mistake, the outcome could have been very different - honesty fosters peace of mind.	3
II	The statement 'Values are caught, not taught' is evident in the story, particularly in the incident when Hari Singh steals Anil's money but later decides to return it. Anil's silent trust and kindness, such as forgiving Hari Singh's failed attempt at cooking and teaching him to read and write, deeply impact the thief. These actions, rather than words, teach Hari Singh the value of trust and honesty, prompting him to choose integrity over theft.	3
III	Griffin's fleeting moments of comfort, such as finding warmth and food, momentarily restore his sense of normalcy but quickly highlight his isolation. These experiences deepen his frustration and longing for connection, influencing his actions. His desperation for survival leads him to steal, disguise himself, and ultimately resort to violence, revealing the emotional toll and the erosion of his identity as he becomes increasingly detached from society.	3
10.	Answer **any one** of the following two questions, in about 100-120 words	**1x6=6**
	Content – 3 Expression – 2 Accuracy – 1	
A.	**Introduction** It plays a significant role in promoting tourism by showcasing the unique cultural, historical, and natural elements of these regions. Each narrative vividly describes local traditions, landscapes, and lifestyles, sparking interest in these destinations among readers. **Body response points** ▪ 'The Baker from Goa' highlights the enduring Goan tradition of baking, the cultural significance of the baker's role, and the idyllic charm of the region. By focusing on the local customs and the nostalgia of childhood memories, it attracts visitors eager to experience Goa's rich heritage, culinary delights, and laid-back atmosphere. ▪ 'Coorg' introduces readers to the region's beautiful landscapes, rich history, and distinct culture. It entices tourists by describing the Coorgi people's martial traditions, hospitality, and connection to nature. ▪ 'Tea from Assam' presents Assam as a tea haven, talking about its tea gardens, picturesque landscapes, and cultural significance. The story highlights the importance of tea in Assam's history, making it an attractive destination for travellers keen on exploring the tea estates, learning about tea cultivation, and experiencing the region's serene beauty. **Conclusion** The detailed depictions of these regions, make them effective tools for promoting tourism by encouraging people to visit and experience these unique places firsthand.	
	OR	
B.	**(Response to be created largely from the first point combined with either the second or third point)**	

	▪ The trees are metaphorically trapped within the house, with their roots disengaging from the cracks in the veranda. Their movement toward the forest represents a yearning for freedom and a return to their natural state. The tiger is physically confined to a cage in the zoo, symbolising the desire to break free from captivity and return to the wild. The tiger's restlessness in the cage mirrors the internal struggle for freedom. ▪ The trees symbolise natural growth and freedom. Their release from the house signifies nature's tolerance and the need for unrestricted growth, much like the human desire to escape limitations that are either physical or the society's. The tiger represents the power of nature and wildness that is stifled by human confinement. The metaphorical connection to freedom is portrayed through the tiger's yearning for the freedom to roam freely in its natural habitat. ▪ The movement of the trees towards the forest symbolises liberation from human-made boundaries, stressing how freedom brings renewal and natural growth. The zoo represents oppression, where the tiger's desire for freedom is unmet. The contrast between the freedom of the wild and the limitations of captivity is stark, showcasing the tiger's struggle.	
11.	Answer **any one** of the following two questions, in about 100-120 words	**1x6=6**
	Content – 3 Expression – 2 Accuracy – 1	
A.	The author uses the narrative technique of misdirection masterfully in 'The Midnight Visitor' to enhance suspense and deliver an unexpected ending. From the beginning, the reader is led to believe in the existence of a balcony through Ausable's fabricated story. By confidently describing how the balcony has been used for intrusions in the past, Ausable creates a believable scenario. This misdirection not only deceives Max but also builds tension as the reader anticipates how the balcony might play a role in the unfolding events. The suspense peaks when Max, in a desperate attempt to avoid the 'police,' decides to escape through the balcony—only to realise too late that it doesn't exist. This clever twist destabilises expectations and highlights Ausable's wit and resourcefulness. The use of misdirection keeps the reader engaged and ensures a surprising and satisfying conclusion to the story.	
	OR	
B.	The role of the Surgery in the story is pivotal, both as a place of physical recovery and as a catalyst for Tricki's transformation. Critically, the Surgery represents a contrast to the overindulgent environment at Mrs. Pumphrey's home. While Mrs. Pumphrey's pampering and excessive feeding led to Tricki's ill health, the Surgery offers a more balanced, structured environment where Tricki receives proper care, including a strict diet, exercise, and, importantly, social interaction with other dogs, all of which contribute significantly to his recovery. The Surgery symbolises not just medical intervention but a shift toward responsible pet care, bringing up the important aspect of a pet's well-being which requires more than affection and indulgence. Through Tricki's recovery at the Surgery, the writer critiques overindulgence and highlights the importance of holistic, responsible care for pets, both physically and emotionally.	

हिन्दी (पाठ्यक्रम-अ) कोड (002)
प्रतिदर्श प्रश्नपत्र*
कक्षा-दसवीं (2025-26)

निर्धारित समय: 3 घंटे **अधिकतम अंक : 80**

सामान्य निर्देश :
निम्नलिखित निर्देशों को बहुत सावधानी से पढ़िए और उनका सख्ती से 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 आतंरिक विकल्प दिए गए हैं ।
(iv) प्रश्नों के उत्तर दिए गए निर्देशों का पालन करते हुए लिखिए ।

	खंड – क (अपठित बोध)	अंक 14
1	निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर उस पर आधारित पूछे गए प्रश्नों के उत्तर लिखिए : भारतीय संस्कृति, जीवनशैली और खान-पान में मोटे अनाजों (मिलेट्स) का विशेष स्थान रहा है । ये विशिष्ट अनाज हमारे स्वास्थ्य के लिए लाभदायक होने के साथ-साथ पर्यावरण के लिए भी अच्छे होते हैं क्योंकि कम पानी और संसाधन के बीच ये विकसित हो जाते हैं । यह हमारे लिए गौरव की बात है कि भारत सरकार के सुझाव पर संयुक्त राष्ट्र ने वर्ष 2023 को अंतरराष्ट्रीय मोटा अनाज वर्ष के रूप में घोषित किया । जिसका उद्देश्य मोटे अनाजों को लेकर जागरूकता फैलाना और इनके उत्पादन व सेवन को बढ़ावा देना है । आमजन के बीच मोटे अनाजों का सेवन पिछली कई शताब्दियों से प्रचलित है, परन्तु इसके पोषकीय और औषधीय गुणों की जानकारी हाल ही में हुए जैव-रासायनिक अनुसंधानों और चिकित्सा संबंधी अध्ययनों से सामने आई है । आधुनिक जीवनशैली से उत्पन्न होने वाले रोगों के संदर्भ में मोटे अनाजों के अनेक स्वास्थ्य लाभों को दुनिया ने जाना-पहचाना और सराहा है । मोटे अनाजों में गेहूँ और धान की अपेक्षा प्रोटीन और संतुलित अमीनो अम्ल अधिक पाया जाता है । इस तरह से ये मोटे अनाज बाकी अनाजों से पोषण के मामले में श्रेष्ठ होते हैं । इसके अलावा, मोटे अनाज आहार संबंधी रेशों, गुणवत्तापूर्ण वसा और महत्त्वपूर्ण खनिज जैसे- कैल्शियम, पोटैशियम, मैग्नीशियम, आयरन, ज़िंक तथा बी-कॉम्प्लेक्स विटामिनों के समृद्ध स्रोत हैं । मोटे अनाजों में पोषण और स्वास्थ्य से जुड़े इतने फ़ायदों के बावजूद वर्तमान समय में मानव आबादी इनका सेवन नहीं करती या बहुत कम लोग इसे अपने खाने की थाली में जगह देते हैं । यह एक विडंबना है । मोटे अनाजों के सेवन में इस गिरावट से भारत में पोषण स्थिति में भारी कमी आई है । स्रोत – विज्ञान प्रगति (मासिक पत्रिका)	7
(क)	उपर्युक्त गद्यांश किस विषयवस्तु पर आधारित है? (i)कुपोषण की समस्या पर (ii) मोटे अनाज के महत्त्व पर (iii)संतुलित आहार के महत्त्व पर (iv)स्वास्थ्य संबंधी समस्याओं पर	1

**कृपया ध्यान दें, शैक्षणिक सत्र 2024-25 की मूल्यांकन योजना वर्तमान सत्र अर्थात 2025-26 में भी जारी रहेगी।*

(ख)	निम्नलिखित कथन और कारण पर विचार करते हुए उपयुक्त विकल्प का चयन कर लिखिए : कथन : मोटे अनाज बाकी अनाजों से पोषण के मामले में श्रेष्ठ होते हैं । कारण : मोटे अनाजों में अनेक पोषकीय और औषधीय खूबियाँ होती हैं । विकल्प – (i) कथन ग़लत है, किंतु कारण सही है । (ii) कथन और कारण दोनों ग़लत हैं । (iii) कथन सही है और कारण कथन की सही व्याख्या है । (iv) कथन सही है किंतु कारण कथन की सही व्याख्या नहीं है ।	1
(ग)	अंतरराष्ट्रीय मोटा अनाज वर्ष का उद्देश्य है – उचित विकल्प का चयन करें – (I)मोटे अनाज के उत्पादन को बढ़ावा देना । (II)मोटे अनाज के प्रति जागरूकता फैलाना । (III)मोटे अनाज को मुख्य फ़सल घोषित करना । (IV)मोटे अनाज की प्रतिष्ठा को क्षति पहुँचाना । विकल्प – (i) कथन (I) और (II) सही हैं । (ii) केवल कथन (III) सही है । (iii) कथन (I) और (IV) सही हैं । (iv) कथन (I), (II) और (IV) सही हैं ।	1
(घ)	आज मोटे अनाज अपने किन गुणों के कारण लोकप्रिय हो रहे हैं ?	2
(ङ)	कुपोषण की समस्या के समाधान में मोटे अनाजों की क्या भूमिका हो सकती है ?	2
2	निम्नलिखित काव्यांश को ध्यानपूर्वक पढ़कर उस पर आधारित पूछे गए प्रश्नों के उत्तर लिखिए : गुलाब का फूल है हमारा पढ़ा–लिखा मैंने उसे काफी उलट–पुलट कर देखा है मुझे तो वह ऐसा ही दिखा सबसे बड़ा सबूत उसके गुलाब होने का यह है कि वह गाँव में जाकर बसने के लिए तैयार नहीं है गाँव में उसकी प्रदर्शनी कौन कराएगा वहाँ वह अपनी शोभा की प्रशंसा किससे कराएगा वह फूलने के बाद किसी फसल में थोड़े ही बदल जाता है	7

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	मूरख किसान को फूलने के बाद फसल देने वाला ही तो भाता है गाँव में इसलिए ठीक है अलसी और सरसों और तिली के फूल जा नहीं सकते वहाँ कदापि गुलाब और लिली के फूल बुरा नहीं मानना चाहिए इस गुलाब - वृत्ति का गाँव वालों को क्योंकि वहाँ रहना चाहिए सिर्फ ऐसे हाथ-पाँव वालों को जो बो सकते हैं और काट सकते हैं कुएँ खोद सकते हैं खाई पाट सकते हैं और फिर भी चुपचाप समाजवाद पर भाषण सुनकर वोट दे सकते हैं गुलाब के फूल को – भवानी प्रसाद मिश्र	
(क)	प्रस्तुत कविता में किस भाव की प्रधानता है ? (i) हास्य (ii) प्राकृतिक सौंदर्य (iii) व्यंग्य (iv) आक्रोश	1
(ख)	'गुलाब' किसका प्रतीक है ? (i) शहर के पढ़े-लिखे नौजवानों का । (ii) शहर के वातावरण का । (iii) शहर की ज़िंदगी का । (iv) शहर की सुविधाओं का ।	1
(ग)	निम्नलिखित कथन और कारण पर विचार करते हुए उपयुक्त विकल्प का चयन कर लिखिए : कथन : बुरा नहीं मानना चाहिए, इस गुलाब-वृत्ति का । कारण : वह बचपन से शहर में ही पला-बड़ा है । विकल्प : (i) कथन ग़लत है, किंतु कारण सही है । (ii) कथन और कारण दोनों ही ग़लत हैं । (iii) कथन सही है और कारण कथन की सही व्याख्या है । (iv) कथन सही है किंतु कारण कथन की सही व्याख्या नहीं है ।	1
(घ)	गुलाब गाँव में जाकर बसने के लिए क्यों तैयार नहीं है ?	2

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(ङ)	कविता के आधार पर लिखिए कि किसान को किस तरह के फूल भाते 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)	नवाब साहब ने तौलिया झाड़ा और सामने बिछा लिया । (सरल वाक्य में बदलिए)	
(ख)	हालदार साहब को उधर से गुज़रते समय मूर्ति में कुछ अंतर दिखाई दिया । (मिश्र वाक्य में बदलिए)	
(ग)	मन्नू के एक इशारे पर लड़कियाँ कक्षा से बाहर निकलकर नारे लगाने लगीं । (संयुक्त वाक्य में बदलिए)	
(घ)	कातिक आया नहीं कि बालगोबिन भगत की प्रभातियाँ शुरू हुईं । (रचना की दृष्टि से वाक्य का भेद लिखिए)	
(ङ)	सबसे बड़ी बात है कि <u>काशी के पास उस्ताद बिस्मिल्ला खाँ जैसा नायाब हीरा रहा है ।</u> (रेखांकित उपवाक्य का भेद लिखिए)	
4	निर्देशानुसार 'वाच्य' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर लिखिए :	4x1=4
(क)	पतोहू ने भगत को दुनियादारी से निवृत्त कर दिया था । (कर्मवाच्य में बदलिए)	
(ख)	नवाब साहब द्वारा खीरे पर मसाला छिड़का गया। (कर्तृवाच्य में बदलिए)	
(ग)	आओ, पेड़ की छाया में बैठे । (भाववाच्य में बदलिए)	
(घ)	मुझसे यह काम नहीं हो सकता । (कर्तृवाच्य में बदलिए)	
(ङ)	उद्धव द्वारा ज्ञान का उपदेश दिया गया। (वाच्य पहचानकर भेद बताइए)	
5	निर्देशानुसार 'पद परिचय' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के रेखांकित पदों का पद-परिचय लिखिए :	4x1=4
(क)	<u>शीला अग्रवाल</u> को कॉलेज वालों ने नोटिस थमा दिया ।	
(ख)	खीरे की <u>पनियाती</u> फाँकें बहुत स्वादिष्ट थीं।	
(ग)	शुक्ल पक्ष में चाँद निरंतर <u>बढ़ता है।</u>	
(घ)	उनकी <u>अँगुलियाँ</u> खँजड़ी पर लगातार चल रहीं थीं ।	
(ङ)	<u>शाबाश</u> ! तुमने कितना अच्छा कार्य किया।	
6	निर्देशानुसार 'अलंकार' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों की रेखांकित काव्य पंक्तियों में अलंकार पहचान कर लिखिए :	4x1=4
(क)	<u>प्रीति-नदी</u> में पाउँ न बोरयौ ।	
(ख)	कोटि <u>कुलिस सम बचनु तुम्हारा</u> । ब्यर्थ धरहु धनु बान कुठारा ।।	
(ग)	आगे नदिया पड़ी अपार, घोड़ा कैसे उतरे पार । <u>राणा ने सोचा इस पार, तब तक चेतक था उस पार ।।</u>	
(घ)	<u>सिमटा हुआ संकोच है हवा की थिरकन का</u> ।	
(ङ)	<u>सुनत जोग लागत है ऐसौ, ज्यौं करुई ककरी</u> ।	
	खंड – ग (पाठ्य पुस्तक एवं पूरक पाठ्य पुस्तक)	30
7	निम्नलिखित पठित गद्यांश पर आधारित बहुविकल्पीय प्रश्नों के सर्वाधिक उपयुक्त उत्तर वाले विकल्प चुनकर लिखिए :	5x1=5

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	वही पुराना स्वर, वही पुरानी तल्लीनता। घर में पतोहू रो रही है जिसे गाँव की स्त्रियाँ चुप कराने की कोशिश कर रही हैं। किंतु, बालगोबिन भगत गाए जा रहे हैं! हाँ, गाते-गाते कभी-कभी पतोहू के नज़दीक भी जाते और रोने के बदले उत्सव मनाने को कहते। आत्मा परमात्मा के पास चली गई, विरहिनी अपने प्रेमी से जा मिली, भला इससे बढ़कर आनंद की कौन बात? मैं कभी-कभी सोचता, यह पागल तो नहीं हो गए, किंतु नहीं, वह जो कुछ कह रहे थे उसमें उनका विश्वास बोल रहा था-वह चरम विश्वास, जो हमेशा ही मृत्यु पर विजयी होता आया है। बेटे के क्रिया-कर्म में तूल नहीं किया; पतोहू से ही आग दिलाई उसकी। किंतु ज्यों ही श्राद्ध की अवधि पूरी हो गई, पतोहू के भाई को बुलाकर उसके साथ कर दिया, यह आदेश देते हुए कि इसकी दूसरी शादी कर देना।	
(क)	बालगोबिन भगत जी द्वारा किया गया कौन-सा कार्य सामाजिक परंपरा के विरुद्ध था? (I) पतोहू से बेटे की चिता को आग दिलाना। (II) पतोहू को उसके भाई के साथ मायके भेजना। (III) बेटे का श्राद्ध विधि-विधान से करना। (IV) बेटे की मृत्यु का उत्सव मनाना। विकल्प – (i) कथन (I) और (II) सही हैं। (ii) केवल कथन (III) सही है। (iii) कथन (I) और (IV) सही हैं। (iv) कथन (II) और (III) सही हैं।	
(ख)	'विरहनी अपने प्रेमी से जा मिली' – इस कथन में बालगोबिन भगत के अनुसार विरहनी कौन है? (i) परमात्मा (ii) आत्मा (iii) काया (iv) मृत्यु	
(ग)	निम्नलिखित कथन और कारण पर विचार करते हुए उपयुक्त विकल्प का चयन कर लिखिए : कथन : बालगोबिन भगत ने अपने पुत्र को मुखाग्नि देने का कार्य अपनी पुत्रवधु से करवाया। कारण : बालगोबिन भगत रूढ़िविरोधी और नारी सम्मान के पक्षधर थे। विकल्प : (i) कथन ग़लत है, किंतु कारण सही है। (ii) कथन और कारण दोनों ही ग़लत हैं। (iii) कथन सही है और कारण कथन की सही व्याख्या है। (iv) कथन सही है किंतु कारण कथन की सही व्याख्या नहीं है।	
(घ)	लेखक को यह संदेह है कि बालगोबिन भगत कहीं पागल तो नहीं हो गए क्योंकि (I) वे पतोहू को उसके भाई के साथ मायके भेज रहे थे। (II) वे रोने के बदले उत्सव मनाने को कह रहे थे। (III) वे पुत्र की मृत्यु के बाद गाए जा रहे थे। (IV) वे पतोहू को चुप कराने की कोशिश कर रहे थे। विकल्प – (i) कथन (I) और (II) सही हैं। (ii) केवल कथन (III) सही है। (iii) कथन (I) और (IV) सही हैं।	

	(iv) कथन (II) और (III) सही हैं	
(ङ)	बेटे की मृत्यु के बाद बालगोबिन भगत अपनी बहू से क्या अपेक्षा रखते थे ? (i) वह उनकी आजीवन सेवा करे । (ii) वह विधवा का जीवन व्यतीत करे । (iii) वह कबीर के गीत गाया करे । (iv) वह पुनर्विवाह कर ले ।	
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)	'नेताजी का चश्मा' कहानी के आधार पर हालदार साहब के व्यक्तित्व का परिचय लिखिए ।	
(ख)	लेखिका मन्नू भंडारी ने अपनी माँ की तुलना धरती से क्यों की है ? 'एक कहानी यह भी' पाठ के आधार पर स्पष्ट कीजिए।	
(ग)	'मेरे मालिक एक सुर बक्श दे। सुर में वह तासीर पैदा कर कि आँखों से सच्चे मोती की तरह अनगढ़ आँसू निकल आएँ ।' 'नौबतखाने में इबादत' पाठ के आधार पर बिस्मिल्ला खाँ के इस कथन को स्पष्ट कीजिए।	
(घ)	लेखक संस्कृति-असंस्कृति और सभ्यता-असभ्यता के भ्रमजाल में फँसे मनुष्यों से क्या प्रश्न करता है ?	
9	निम्नलिखित पठित काव्यांश पर आधारित बहुविकल्पीय प्रश्नों के सर्वाधिक उपयुक्त उत्तर वाले विकल्प चुनकर लिखिए : तारसप्तक में जब बैठने लगता है उसका गला प्रेरणा साथ छोड़ती हुई उत्साह अस्त होता हुआ आवाज़ से राख जैसा कुछ गिरता हुआ तभी मुख्य गायक को ढाँढ़स बँधाता कहीं से चला आता है संगतकार का स्वर कभी-कभी वह यों ही दे देता है उसका साथ यह बताने के लिए कि वह अकेला नहीं है और यह कि फिर से गाया जा सकता है गाया जा चुका राग और उसकी आवाज़ में जो एक हिचक साफ़ सुनाई देती है या अपने स्वर को ऊँचा न उठाने की जो कोशिश है उसे विफलता नहीं उसकी मनुष्यता समझा जाना चाहिए ।	5x1=5
(क)	'तारसप्तक में जब बैठने लगता है उसका गला' इस पंक्ति में 'उसका' शब्द किसके लिए प्रयोग किया गया है ? (i) संगतकार के लिए । (ii) संगीतकार के लिए । (iii) तबला वादक के लिए । (iv) मुख्य गायक के लिए ।	
(ख)	निम्नलिखित काव्य पंक्तियों में से किस पंक्ति से मुख्य गायक के उत्साह के क्षीण होने का पता चलता है ? सही विकल्प का चयन कीजिए – (I) आवाज़ से राख जैसा कुछ गिरता हुआ ।	

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	(II) प्रेरणा साथ छोड़ती हुई उत्साह अस्त होता हुआ । (III) कहीं से चला आता है संगतकार का स्वर । (IV) उसकी आवाज़ में जो एक हिचक साफ़ सुनाई देती है । विकल्प – (i) कथन (I) और (II) सही हैं । (ii) केवल कथन (III) सही है । (iii) कथन (I) और (IV) सही हैं । (iv) कथन (II) और (III) सही हैं ।	
(ग)	निम्नलिखित कथन और कारण पर विचार करते हुए उपयुक्त विकल्प का चयन कर लिखिए : कथन : संगतकार की आवाज़ में एक हिचक साफ़ सुनाई देती है और वह अपनी आवाज़ को ऊँचा नहीं उठने देने की कोशिश करता है । कारण : दूसरों को सफ़ल बनाने के लिए त्याग करना मनुष्यता होती है । संगतकार का त्याग उसकी मनुष्यता का परिचायक है । विकल्प : (i) कथन ग़लत है, किंतु कारण सही है । (ii) कथन और कारण दोनों ही ग़लत हैं । (iii) कथन सही है और कारण कथन की सही व्याख्या है । (iv) कथन सही है किंतु कारण कथन की सही व्याख्या नहीं है ।	
(घ)	संगतकार किस प्रकार मुख्य गायक को अहसास दिलाता है कि वह अकेला नहीं है ? (i) मुख्य गायक के समान भारी स्वर में गाकर । (ii) मुख्य गायक को प्रेरित करके । (iii) मुख्य गायक से ऊँचे स्वर में गाकर । (iv) मुख्य गायक के टूटते स्वर में अपना स्वर मिलाकर ।	
(ङ)	संगतकार के स्वर में हिचक सुनाई देने का क्या कारण है ? (i) संगतकार में आत्मविश्वास का अभाव है । (ii) संगतकार मुख्य गायक का मान बनाए रखना चाहता है । (iii) संगतकार को गायन में अभी प्रवीणता नहीं आई है । (iv) संगतकार में भय और हीनता का भाव 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)	गोपियों को उद्धव से क्यों कहना पड़ा – *'हरि हैं राजनीति पढ़ि आए'* । 'सूरदास के पद' के आधार पर उत्तर लिखिए ।	
(ख)	*" सो बिलगाउ बिहाई समाजा । न त मारे जैहहिं सब राजा'* – परशुराम जी के मुँह से ऐसा सुनकर लक्ष्मण की क्या प्रतिक्रिया रही ?	
(ग)	'उत्साह' और 'अट नहीं रही है' कविताओं के आधार पर सूर्यकांत त्रिपाठी 'निराला' जी के प्रकृति चित्रण का वर्णन अपने शब्दों में कीजिए।	
(घ)	'आत्मकथ्य' कविता के माध्यम से कवि श्री 'जयशंकर प्रसाद' जी के व्यक्तित्व की जो झलक मिलती है, वह उनकी ईमानदारी और साहस का प्रमाण है, स्पष्ट कीजिए।	
11	पूरक पाठ्य पुस्तक के निर्धारित पाठों पर आधारित निम्नलिखित तीन प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर लगभग 50-60 शब्दों में लिखिए :	2x4=8

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(क)	'माता का अँचल' पाठ में ग्राम्य संस्कृति के जिस रूप का चित्रण है- वह आधुनिक युग में पर्याप्त अंशों में परिवर्तित हो चुका है। परिवर्तित रूप से कुछ उदाहरण देते हुए इस कथन के समर्थन में अपने विचार लिखिए ।	
(ख)	'यंत्रों की दुनिया ने मनुष्य को यांत्रिक व भाव शून्य बनाने का कार्य किया है, जबकि यात्राएँ मनुष्य को भाव शून्य होने से रोकती हैं।' 'साना-साना हाथ जोड़ि' पाठ के आधार पर आप अपने विचार लिखिए ।	
(ग)	'मैं क्यों लिखता हूँ' पाठ के आधार पर बताइए कि भीतरी विवशता क्या होती है ? लेखक श्री अज्ञेय जी ने इसे स्पष्ट करने के लिए किसकी चर्चा की है ?	
	खंड – घ (रचनात्मक लेखन)	20
12	निम्नलिखित तीन विषयों में से **<u>किसी एक</u>** विषय पर संकेत बिन्दुओं के आधार पर लगभग 120 शब्दों में एक अनुच्छेद लिखिए : (क) ऑनलाइन गेमिंग का बढ़ता जाल • ऑनलाइन गेमिंग क्या है ? • बच्चों और किशोरों पर बढ़ती पकड़ • ऑनलाइन गेमिंग के दुष्परिणाम (ख) स्वस्थ जीवन शैली • स्वस्थ जीवन शैली की आवश्यकता • स्वस्थ आदतें जिनका पालन किया जाना चाहिए • स्वस्थ जीवनशैली के लाभ (ग) हाल ही में देखी फ़िल्म / नाटक की समीक्षा • कहानी,पात्र,संवाद,अभिनय कैसा लगा ? • क्या वास्तविक जीवन के निकट थी ? • क्या प्रेरणा मिली ?	1x6=6
13	(क) आप आनंदी/आनंद हैं । अपने क्षेत्र में बिजली की कटौती से उत्पन्न समस्याओं का उल्लेख करते हुए किसी लोकप्रिय दैनिक समाचार-पत्र के संपादक को लगभग 100 शब्दों में पत्र लिखिए। अथवा (ख) आप आनंदी/आनंद हैं । छोटे-मोटे रोगों के लिए आपकी दादी माँ द्वारा बताए गए घरेलू नुस्खों को संकलित करके आपने एक पुस्तक बनाई है । जिसका नाम आपने 'दादी माँ के घरेलू नुस्खे' रखा है । पुस्तक के प्रकाशन के अवसर पर अपनी दादी माँ को आमंत्रित करते हुए उन्हें लगभग 100 शब्दों में पत्र लिखिए।	1x5=5
14	(क) आप प्रेरणा/प्रेरक हैं । आपने हिन्दी विषय में एम.ए.किया है साथ ही आपके पास बी.एड. की डिग्री भी है । आपके शहर के एक प्रतिष्ठित विद्यालय में हिन्दी विषय के स्नातक शिक्षकों के कुछ पद रिक्त हैं ।आपको उस पद के लिए आवेदन करना है । इसके लिए लगभग 80 शब्दों में अपना एक स्ववृत लेख तैयार कीजिए । अथवा (ख) आप प्रेरणा/प्रेरक हैं। आपके क्षेत्र में सफ़ाई व्यवस्था चरमराई हुई है। सफ़ाई कर्मचारी अक्सर अनुपस्थित रहते हैं। नगर निगम अधिकारी को इससे अवगत कराते हुए लगभग 80 शब्दों में ई-मेल कीजिए ।	1x5=5
15	(क) सौर ऊर्जा के प्रयोग को प्रोत्साहन देने के लिए एक आकर्षक विज्ञापन लगभग 40 शब्दों में विद्युत मंत्रालय की ओर से तैयार कीजिए ।	1x4=4

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	अथवा (ख) आपके हिन्दी शिक्षक/शिक्षिका का नया 'काव्य संग्रह' प्रकाशित हुआ है। उन्हें इस अवसर पर बधाई देते हुए लगभग 40 शब्दों में एक बधाई संदेश लिखिए।	

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अंक योजना
प्रतिदर्श प्रश्नपत्र (2025-26)
हिन्दी (पाठ्यक्रम-अ)
कोड (002)
कक्षा-दसवीं

निर्धारित समय: 3 घंटे **अधिकतम अंक : 80**

सामान्य निर्देश :

1. अंक योजना का उद्देश्य मूल्यांकन को अधिकाधिक वस्तुनिष्ठ बनाना है ।
2. अंक योजना में दिए गए वर्णनात्मक प्रश्नों के उत्तर बिंदु अंतिम नहीं हैं । ये सुझावात्मक एवं सांकेतिक हैं ।
3. यदि परीक्षार्थी इन उत्तर बिन्दुओं से भिन्न, किंतु उपयुक्त उत्तर दें तो उसे उपयुक्त अंक दिए जाएँ ।
4. एक ही प्रकार की अशुद्धि पर बार-बार अंक न काटा जाए ।
5. मूल्यांकन में संपूर्ण अंक पैमाने – 0 से 80 का प्रयोग अभीष्ट है

प्रश्न	**उत्तर संकेत / मूल्य बिंदु**	अंक और अंक विभाजन
	खंड – क (अपठित बोध)	14
1	निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर उस पर आधारित पूछे गए प्रश्नों के उत्तर लिखिए :	7
(क)	(ii) मोटे अनाज के महत्त्व पर ।	1
(ख)	(iii) कथन सही है और कारण कथन की सही व्याख्या है ।	1
(ग)	(i) कथन (I) और (II) सही हैं ।	1
(घ)	आज मोटे अनाजों की लोकप्रियता के कारण : • जैव-रासायनिक अनुसंधानों और चिकित्सा संबंधी अध्ययनों से मोटे अनाजों के अनेक पोषकीय और औषधीय गुणों से लोग परिचित हुए हैं । • ये हमारे स्वास्थ्य के लिए लाभदायक होने के साथ-साथ पर्यावरण के लिए भी अच्छे होते हैं । • अंतरराष्ट्रीय मोटा अनाज वर्ष मनाने से इनके सेवन को बढ़ावा मिला । (केवल दो बिंदु अपेक्षित)	2
(ङ)	कुपोषण की समस्या के समाधान में मोटे अनाजों की अहम् भूमिका है – • मोटे अनाज आहार संबंधी रेशों, गुणवत्तापूर्ण वसा और महत्त्वपूर्ण खनिज जैसे- कैल्शियम, पोटैशियम, मैग्नीशियम, आयरन, ज़िंक तथा बी-कॉम्प्लेक्स विटामिनों के समृद्ध स्रोत हैं । • मोटे अनाज बाकी अनाजों से पोषण के मामले में श्रेष्ठ होते हैं । • मोटे अनाजों में पोषण और स्वास्थ्य से जुड़े अनेक फ़ायदों के प्रति लोगों में जागरूकता फैलाना और मोटे अनाजों के सेवन को बढ़ावा देना ।	2

	(केवल दो बिंदु अपेक्षित)	
2	निम्नलिखित काव्यांश को ध्यानपूर्वक पढ़कर उस पर आधारित पूछे गए प्रश्नों के उत्तर लिखिए :	7
(क)	(iii) व्यंग्य	1
(ख)	(i) शहर के पढ़े-लिखे नौजवानों का ।	1
(ग)	(iii) कथन सही है और कारण कथन की सही व्याख्या है ।	1
(घ)	• वहाँ शहर की तरह उसके अनुकूल वातावरण नहीं है । • वहाँ उसके प्रशंसक नहीं है । • वहाँ उसकी उपयोगिता नहीं है । (केवल दो बिंदु अपेक्षित)	2
(ङ)	किसान को फूलने के बाद फ़सल देने वाले फूल भाते हैं क्योंकि फ़सल ही उसकी जीविका का साधन है । (केवल दो बिंदु अपेक्षित)	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)	नवाब साहब ने तौलिया झाड़कर सामने बिछा लिया ।	1
(ख)	जब हालदार साहब उधर से गुजरे तब उन्हें मूर्ति में कुछ अंतर दिखाई दिया ।	1
(ग)	मन्नू के एक इशारे पर लड़कियाँ कक्षा से बाहर निकलीं और नारे लगाने लगीं ।	1
(घ)	मिश्र वाक्य ।	1
(ङ)	संज्ञा उपवाक्य ।	1
4	निर्देशानुसार 'वाच्य' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर लिखिए :	4x1=4
(क)	पतोहू द्वारा भगत को दुनियादारी से निवृत्त कर दिया गया था ।	1
(ख)	नवाब साहब ने खीरे पर मसाला छिड़का ।	1
(ग)	आओ, पेड़ की छाया में बैठा जाए ।	1
(घ)	मैं यह काम नहीं कर सकता ।	1
(ङ)	कर्मवाच्य ।	1
5	निर्देशानुसार 'पद परिचय' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के रेखांकित पदों का पद-परिचय लिखिए :	4x1=4
(क)	शीला अग्रवाल - व्यक्तिवाचक संज्ञा, स्त्रीलिंग, एकवचन, कर्म कारक ।	1
(ख)	पनियाती- गुणवाचक विशेषण, विशेष्य 'फाँके', बहुवचन ।	1
(ग)	बढ़ता है- अकर्मक क्रिया, वर्तमान काल, एकवचन, पुल्लिंग, कर्तृवाच्य ।	1
(घ)	अँगुलियाँ- रीतिवाचक क्रिया विशेषण, 'चल रहीं थीं' क्रिया की विशेषता ।	1
(ङ)	शाबाश -विस्मयादिबोधक अव्यय, प्रसन्नता सूचक ।	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)	रूपक अलंकार ।	1
(ख)	उपमा अलंकार ।	1
(ग)	अतिशयोक्ति अलंकार ।	1

(घ)	मानवीकरण अलंकार ।	1
(ङ)	उत्प्रेक्षा अलंकार ।	1
	खंड – ग (पाठ्य पुस्तक एवं पूरक पाठ्य पुस्तक)	30
7	निम्नलिखित पठित गद्यांश पर आधारित बहुविकल्पीय प्रश्नों के सर्वाधिक उपयुक्त उत्तर वाले विकल्प चुनकर लिखिए :	5x1=5
(क)	(iii) कथन (I) और (IV) सही हैं ।	1
(ख)	(ii) आत्मा ।	1
(ग)	(iii) कथन सही है और कारण कथन की सही व्याख्या है ।	1
(घ)	(iv) कथन (II) और (III) सही हैं ।	1
(ङ)	(iv) वह पुनर्विवाह कर ले ।	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)	• हालदार साहब का व्यक्तित्व देशभक्ति की भावना से ओतप्रोत था । • वे शहीदों और देशभक्तों का सम्मान करते थे । • देश भक्ति का मज़ाक उड़ाया जाना पसंद नहीं करते थे । • वे स्वभाव से भावुक थे । (किन्हीं दो बिंदुओं का उल्लेख अपेक्षित)	2
(ख)	लेखिका मन्नू भंडारी ने अपनी माँ की तुलना धरती से इसलिए की है : • धरती की तरह उनकी माँ में भी असीम धैर्य और सहनशक्ति थी। • उन्होंने भी धरती की तरह केवल देना ही सीखा था, किसी से कुछ पाने की इच्छा नहीं रखी थी । • अपने शांत स्वभाव के कारण वे सहनशील थीं। • पिता की ज़्यादतियाँ और बच्चों की फ़रमाइशें मानती थीं। (किन्हीं दो बिंदुओं का उल्लेख अपेक्षित)	2
(ग)	सुमधुर सुरीले सुरों को सुनकर व्यक्ति इतना भाव-विभोर हो जाता है कि उसकी आँखों से आँसू निकल आते हैं। ये आँसू सच्चे मोती की तरह होते हैं। इनके निकल आने पर सुर की परीक्षा हो जाती है। बिस्मिल्ला खाँ नमाज़ के बाद सज़दे में खुदा से ऐसे ही सुर की माँग करते थे, वे सुर को खुदा की देन मानते थे। उनके लिए सुरों से बढ़कर कोई चीज़ कीमती नहीं थी।	2
(घ)	लेखक संस्कृति-असंस्कृति और सभ्यता-असभ्यता के भ्रमजाल में फँसे मनुष्यों से प्रश्न करता है कि : • मनुष्य की जो योग्यता उससे आत्म-विनाश के साधनों का आविष्कार कराती है, उसे संस्कृति कहना उचित है या असंस्कृति ? • इसी प्रकार जिन साधनों के बल पर वह दिन-रात आत्म-विनाश में जुटा हुआ है, उसे सभ्यता समझे या असभ्यता ? • यदि संस्कृति का कल्याण की भावना से नाता टूट जाएगा तो असंस्कृति होकर रह जाएगी । • और ऐसी संस्कृति का अवश्यंभावी परिणाम असभ्यता के अतिरिक्त दूसरा क्या होगा ? (किन्हीं दो बिंदुओं का उल्लेख अपेक्षित)	2

9	निम्नलिखित पठित काव्यांश पर आधारित बहुविकल्पीय प्रश्नों के सर्वाधिक उपयुक्त उत्तर वाले विकल्प चुनकर लिखिए :	5x1=5
(क)	(iv) मुख्य गायक के लिए ।	1
(ख)	(i) कथन (I) और (II) सही हैं ।	1
(ग)	(iii) कथन सही है और कारण कथन की सही व्याख्या है ।	1
(घ)	(iv) मुख्य गायक के टूटते स्वर में अपना स्वर मिलाकर ।	1
(ङ)	(ii) संगतकार मुख्य गायक का मान बनाए रखना चाहता है ।	1
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)	जब गोपियों ने देखा कि : • जिस कृष्ण की वे बहुत समय से प्रतीक्षा कर रही थीं, वे नहीं आए। • उनकी जगह कृष्ण से दूर ले जाने वाला योग-संदेश आ गया तो उन्हें इसमें कृष्ण की एक चाल नज़र आई। • वे इसे अपने साथ किया छल समझने लगीं। इसीलिए उन्होंने आरोप लगाया कि हरि हैं राजनीति पढ़ि आए। • कृष्ण को अब राजनीति का ज्ञान हो गया है । (किन्हीं दो बिंदुओं का उल्लेख अपेक्षित)	2
(ख)	• सारे राजाओं के मारे जाने की बात सुनकर लक्ष्मण मुसकराने लगे। • उन्होंने परशुराम जी से व्यंग्य भरे स्वर में कहा कि बचपन में हमने बहुत-सी धनुहियाँ तोड़ी थी, तब तो आपने ऐसा क्रोध कभी नहीं किया। • इस धनुष से आपका इतना मोह क्यों है ?	2
(ग)	प्रकृति के सौंदर्य का जो चित्र 'अट नहीं रही है' कविता उपस्थित करती है : • कविता में फागुन ऋतु का वर्णन है । • प्रकृति का अनुपम सौंदर्य देखने को मिलता है । • चारों ओर हरियाली, पेड़-पौधों में नई पत्तियाँ, नए फूल आ जाते हैं । • सुगंधित हवा बहती रहती है । • हर तरफ इतना अधिक प्राकृतिक सौंदर्य नज़र आता है, जिसका आँखों में समा पाना भी मुश्किल है । (किन्हीं दो बिंदुओं का उल्लेख अपेक्षित)	2
(घ)	'आत्मकथ्य' कविता के माध्यम से • कवि जयशंकर प्रसाद जी ने अपनी भूलों को स्वीकारने, अपने जीवन की असफलताओं का वर्णन और सरलता के कारण धोखा खाने की स्वीकारोक्ति करने के अलावा वर्तमान के यथार्थ को स्वीकार कर साहसपूर्ण कार्य किया है । • कवि द्वारा यह कहना-छोटे से जीवन की कैसे बड़ी कथाएँ आज कहूँ उनकी ईमानदारी का प्रमाण है ।	2
11	पूरक पाठ्य पुस्तक के निर्धारित पाठों पर आधारित निम्नलिखित तीन प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर लगभग 50-60 शब्दों में लिखिए :	2x4=8
(क)	'माता का अँचल' पाठ में ग्राम्य संस्कृति के जिस रूप का चित्रण है वह आधुनिक युग में परिवर्तित हो चुकी है -	4

	• संचार माध्यम व शहरी संस्कृति के कारण वहाँ के लोगों की जीवन- शैली बदल चुकी है। • संयुक्त परिवारों का स्थान एकल परिवारों ने ले लिया है। • खेल व खेलने की सामग्री बदल गई है। • बच्चे मोबाइल, लैपटॉप का प्रयोग करने लगे हैं। • आज गाँव के नागरिक हर क्षेत्र की जानकारी रखते हैं । • वे परिवेश के प्रति जागरूक हैं। उत्तम खाद, बीज व कृषि-साधनों का प्रयोग करते हैं । • बैंक की सुविधा उन्हें प्राप्त है । (किन्हीं चार बिंदुओं का उल्लेख अपेक्षित)	
(ख)	यात्राएँ मनुष्य को भाव शून्य होने से रोकती हैं – • मनुष्य की नीरस होती जीवन-शैली से मुक्ति दिलाने में यात्राएँ बहुत महत्वपूर्ण भूमिका निभाती हैं। • मनोरंजन, ज्ञानवर्धन एवं अज्ञात स्थलों की जानकारी के साथ-साथ भाषा एवं संस्कृति का भी आदान-प्रदान होता है । • 'साना-साना हाथ जोड़ि' यात्रा-वृतांत में लेखिका की सिक्किम की यात्रा बहुत ही मोहक, आकर्षक एवं आनंदपूर्ण थी। • वहाँ का अनुपम सौंदर्य उनकी आत्मा को छू गया था । • लेखिका प्रकृति की अभूतपूर्व सुंदरता, विराटता तथा महिमा से सम्मोहित हो उठीं। • फूलों की घाटियाँ, झर-झर गिरते जल-प्रपात तथा गहनतम खाइयों ने उनका मन मोह लिया । प्राकृतिक सौंदर्य से आसक्त होकर उनका यह सोचना कि जीवन का आनंद इसी सौंदर्य में है, यह स्पष्ट करता है कि यात्राएँ मनुष्य के जीवन में परिवर्तन लाने में सक्षम हैं । (किन्हीं चार बिंदुओं का उल्लेख अपेक्षित)	4
(ग)	'मैं क्यों लिखता हूँ' पाठ के आधार पर भीतरी विवशता : • किसी भी दृश्य या घटना को देखकर या सुनकर जब मन में अनुभूति की प्रबलता हो, वही भीतरी विवशता होती है । • जब तक कवि या लेखक उसे शब्दों में अभिव्यक्त नहीं करता तब तक उसे शांति नहीं मिलती । • लेखक ने इसे स्पष्ट करने के लिए हिरोशिमा पर लिखी कविता की चर्चा की है ।	4
	खंड – घ (रचनात्मक लेखन)	20
12	निम्नलिखित तीन विषयों में से **<u>किसी एक</u>** विषय पर संकेत बिन्दुओं के आधार पर लगभग 120 शब्दों में एक अनुच्छेद लिखिए : <u>अनुच्छेद लेखन</u> • भूमिका 1 अंक • विषयवस्तु 3 अंक • निष्कर्ष 1 अंक • भाषा शुद्धता 1 अंक	1x6=6

13	किसी एक विषय पर लगभग 100 शब्दों में पत्र लिखिए : <u>पत्र-लेखन</u> • प्रारूप (प्रारंभ और अंत की औपचारिकताएँ) 1 अंक • विषयवस्तु 3 अंक • भाषा शुद्धता 1 अंक	1x5=5
14	<u>स्ववृत लेखन</u> • प्रारूप 1 अंक • विषयवस्तु 3 अंक • भाषा शुद्धता 1 अंक अथवा <u>ई - मेल</u> • प्रारूप 1 अंक • विषयवस्तु 3 अंक • भाषा शुद्धता 1 अंक	1x5=5
15	<u>विज्ञापन लेखन</u> • रचनात्मक प्रस्तुति 1 अंक • विषयवस्तु 2 अंक • भाषा शुद्धता 1 अंक अथवा <u>संदेश लेखन</u> • प्रारूप 1 अंक • विषयवस्तु 2 अंक • भाषा शुद्धता 1 अंक	1x4=4

MATHEMATICS (BASIC) – Code No. 241
SAMPLE QUESTION PAPER
CLASS - X (2025 - 26)

Maximum marks:80 **Time :3 hour**

General Instructions

Read the following instructions carefully and follow them:

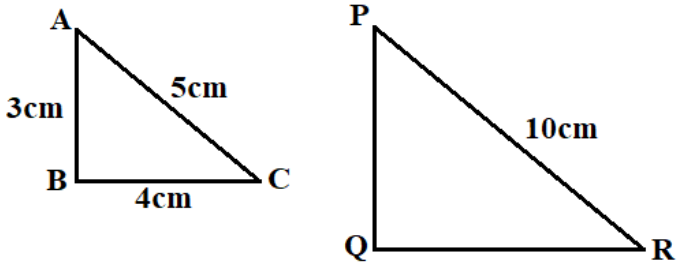
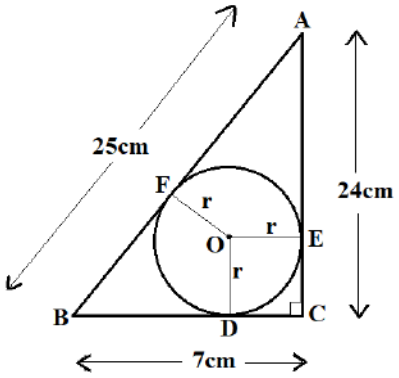
1. This question paper contains 38 questions. All Questions are compulsory.
2. This Question Paper is divided into 5 Sections A, B, C, D and E.
3. In Section A, Question numbers 1-18 are multiple choice questions (MCQs) and question no.19 and 20 are Assertion- Reason based questions of 1 mark each.
4. 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 $\boldsymbol{\pi} = \frac{22}{7}$ 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.	The exponent of 3 in the prime factorization of 2025 is A) 1 B) 2 C) 3 D) 4	1
Q2.	If $2024\boldsymbol{x} + 2025\boldsymbol{y} = 1$; $2025\boldsymbol{x} + 2024\boldsymbol{y} = -1$, then $\boldsymbol{x} - \boldsymbol{y} =$ A) 0 B) – 2 C) 2 D) – 1	1

***Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26**

Q3.	The number of polynomials having -2 and 5 as its zeroes is A) one B) two C) three D) Infinitely many	1
Q4.	Which of the following is **not** a quadratic equation? A) $(x+2)^2 = 2(x+3)$ B) $x^2 + 3x = (-1)(1-3x^2)$ C) $(x+2)(x-1) = x^2 - 2x - 3$ D) $x^3 - x^2 + 2x + 1 = (x+1)^3$	1
Q5.	The value of x for which $2x$, $(x + 10)$ and $(3x + 2)$ are the three consecutive terms of an AP is A) 6 B) -6 C) -2 D) 2	1
Q6.	If $1 + 2 + 3 + 4 + \cdots + 50 = 25\mathbf{k}$, then **k** = A) 50 B) 51 C) 49 D) 26	1
Q7.	The distance between the points (cos30°, sin30°) and (cos60°, – sin 60°) is A) 0 unit B) $\sqrt{3}$ units C) 1 unit D) $\sqrt{2}$ units	1
Q8.	The co-ordinates of the point which is mirror image of the point $(-3, 5)$ about x-axis are A) (3, 5) B) (3, −5) C) $(-3, -5)$ D) $(-3, 5)$	1
Q9.	If in ΔABC and ΔDEF, $\frac{AB}{EF} = \frac{AC}{DE}$ then they will be similar when A) $\angle A = \angle D$ B) $\angle A = \angle E$ C) $\angle C = \angle F$ D) $\angle B = \angle E$	1

Q10.	If $\Delta ABC \sim \Delta PQR$, then perimeter of the triangle PQR (in cm) is A) 12 B) 24 C) 18 D) 20  **For visually Impaired students only** If $\Delta ABC \sim \Delta PQR$, where AB = 3cm, BC = 4cm, AC = 5cm and PR = 10cm, then perimeter of the triangle PQR (in cm) is A) 12 B) 24 C) 18 D) 20	1
Q11.	In the figure given below, radius **r** of the circle which touches the sides of the triangle is A) 3 cm B) 6 cm C) 7 cm D) 4 cm  ***For visually Impaired students only*** From a point P, which is at a distance of 26cm from the centre O of a circle with radius 10 cm, the pair of tangents PQ and PR to the circle are drawn. Then the area of the quadrilateral PQOR (in cm^2) is A) 220 B) 240 C) 260 D) 280	1
Q12.	Which one of the following is **not** equal to Unity? A) $\sin^2\boldsymbol{x} + \cos^2\boldsymbol{x}$ B) $\cot^2\boldsymbol{x} - \operatorname{cosec}^2\boldsymbol{x}$ C) $\sec^2\boldsymbol{x} - \tan^2\boldsymbol{x}$ D) $\tan\boldsymbol{x}.\cot\boldsymbol{x}$	1

Q13.	Consider the following frequency distribution | Class	0 – 5	5 – 10	10 – 15	15 – 20	20 – 25
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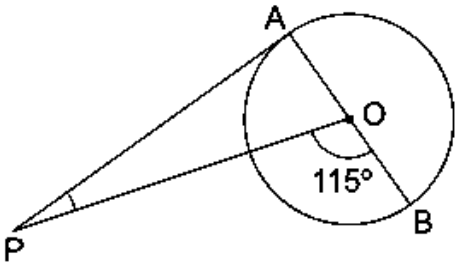
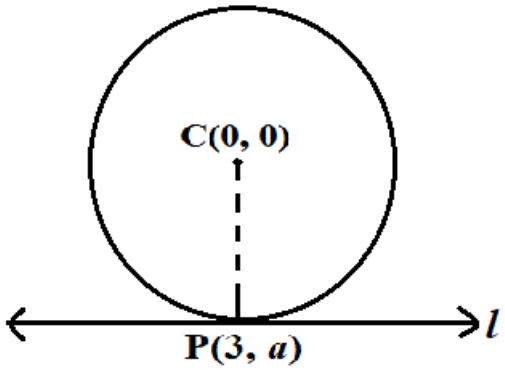
Frequency	11	12	13	9	11 | The upper limit of median class is A) 10 B) 13 C) 15 D) 20	1
Q14.	Let empirical relationship between the three measures of central tendency be **a**(Median) = Mode + **b**(Mean), then (2**b** + 3**a**) = A) 11 B) 12 C) 13 D) 14	1
Q15.	From an external point Q, the length of tangent to a circle is 12 cm and the distance of Q from the centre of circle is 13 cm. The radius of circle (in cm) is A) 10 B) 5 C) 12 D) 7	1
Q16.	In the given figure, PA is a tangent from an external point P to a circle with centre O and diameter AB. If ∠POB=115°, then measure of ∠APO is A) 25° B) 30° C) 20° D) 65°  ***For visually Impaired students only*** At one end A of a diameter AB of a circle with radius 13 cm, tangent XAY is drawn to the circle. The length of the chord CD parallel to XY and at a distance 18 cm from A is A) 24 cm B) 25 cm C) 26 cm D) 18 cm	1

Q17.	The circumferences of two circles are in the ratio 3 : 4. The ratio of their areas is A) 3 : 4 B) 4 : 3 C) 9 : 16 D) 16 : 9	1
Q18.	An event is most unlikely to happen. Its probability is A) 0.0001 B) 0.001 C) 0.01 D) 0.1	1
	Each of the following questions contains two statements i.e., ASSERTION and REASON, and has following four choices. Only one of which is the correct answer.	
Q19.	**ASSERTION (A)**: Line joining the midpoints of two sides of triangle is parallel to the third side. **REASON (R)**: If a line divides two sides of a triangle in the same ratio then it is parallel to the third side. 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.	1
Q20.	**ASSERTION (A)**: Two coins are tossed simultaneously. Possible outcomes are two heads, one head and one tail, two tails. Hence, the probability of getting two heads is $\frac{1}{3}$. **REASON (R)**: Probabilities of 'equally likely' outcomes of an experiment are always equal. 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.	1

SECTION – B
(Very Short Answers)
This section comprises of VSA of 2 marks each

Q21.	**(A)** Show that the number $2 \times 5 \times 7 \times 11 + 11 \times 13$ is a composite number. **OR** **(B)** Find the smallest number which is divisible by both 306 and 657.	2
Q22.	Find the radius of the circle with centre at origin, if line l given by $x + y = 5$ is tangent to the circle at point P.  ***For visually Impaired students only*** Find the radius of the circle whose end points of a diameter are (0, 0) and (6, 8).	2
Q23.	If the zeroes of the quadratic polynomial $x^2 + (a + 1)x + b$ are 2 and – 3, then find the values of a and b.	2
Q24.	Find the nature of roots of the quadratic equation $x^2 + 4x - 3\sqrt{2} = 0$.	2
Q25.	**(A)** Evaluate : $2 \sin 30° \tan 60° - 3 \cos^2 60° \sec^2 30°$ **OR** **(B)** If $\sin x = \frac{7}{25}$, where x is an acute angle, then find the value of $\sin x . \cos x (\tan x + \cot x)$.	2

***Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26**

SECTION – C
(Short Answers)

This section comprises of SA type questions of 3 marks each

Q26. Show that $\sqrt{2} - \sqrt{5}$ is an irrational number. **3**

Q27. **(A)** The frequency distribution table of agriculture holdings in a village is given below: **3**

Area of land (in hectares)	1 – 3	3 – 5	5 – 7	7 – 9	9 – 11	11 – 13
No. of families	20	45	80	55	40	12

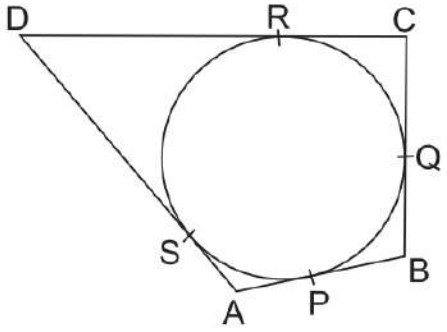
Find the modal agriculture holdings of the village.

OR

(B) If the mean of the following distribution is 54, find the value of *p.*

Class Interval	0 – 20	20 – 40	40 – 60	60 – 80	80 – 100
Frequency	7	*p*	10	9	13

Q28. A quadrilateral ABCD is drawn to circumscribe a circle, as shown in the given figure. Show that $\frac{AB + CD}{AD + BC} = 1$ **3**

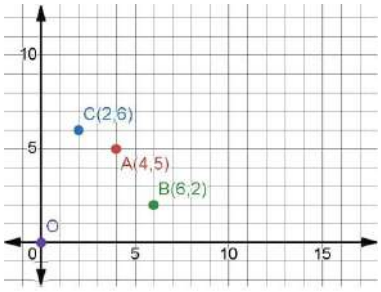


For visually Impaired students only

Show that parallelogram circumscribing a circle is a rhombus.

***Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26**

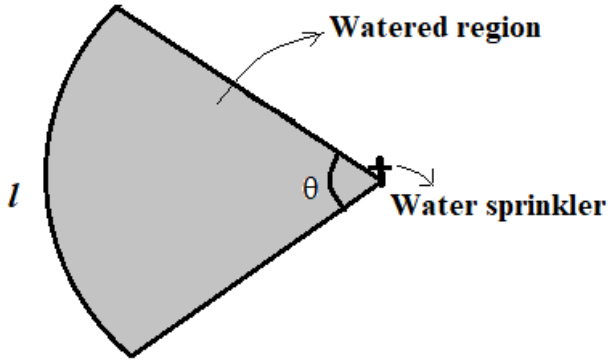
Q29.	**(A)** On a particular day, 50000 people attended a Cricket Test Match between India and Australia in Sydney Cricket Ground. Let $\boldsymbol{x}$ be the number of adults attended the cricket match and $\boldsymbol{y}$ be the number of children attended the cricket match. Cost of an adult ticket was ₹1000 while cost of a child ticket was ₹200. On that day Revenue earned by selling all 50,000 tickets, was ₹4,20,00,000. Find how many adults and how many children attended the cricket match? **OR** **(B)** Solve for $\boldsymbol{x}$ and $\boldsymbol{y}$, **graphically**: $2\boldsymbol{x} + \boldsymbol{y} = 6;\ \boldsymbol{x} + \boldsymbol{y} = 5$ **For visually Impaired students only** **(A)** On a particular day, 50000 people attended a Cricket Test Match between India and Australia in Sydney Cricket Ground. Let $\boldsymbol{x}$ be the number of adults attended the cricket match and $\boldsymbol{y}$ be the number of children attended the cricket match. Cost of an adult ticket was ₹1000 while cost of a child ticket was ₹200. On that day Revenue earned by selling all 50,000 tickets, was ₹4,20,00,000. Find how many adults and how many children attended the cricket match. **OR** **(B)** A 2-digit number is 6 times the sum of its digits. The number formed by reversing the digits is 9 less than the given number. Find the number.	3
Q30.	Prove that : $(\sin\boldsymbol{x} - \cos\boldsymbol{x} + 1).(\sec\boldsymbol{x} - \tan\boldsymbol{x}) = (\sin\boldsymbol{x} + \cos\boldsymbol{x} - 1)$	3
Q31.	The sum of first $\boldsymbol{n}$ terms of an AP is $5\boldsymbol{n}^2 - \boldsymbol{n}$. Find the $\boldsymbol{n}^{\text{th}}$ term of the AP.	3
	SECTION – D **(Long Answers)** *This section comprises of LA type questions of 5 marks each*	
Q32.	Prove that a line drawn parallel to one side of a triangle intersecting other two sides in distinct points, divides the other two sides in the same ratio.	5
Q33.	**(A)** The numerator of a fraction is 3 less than its denominator. If 2 is added to both of its numerator and denominator then the sum of the new fraction and original fraction is $\frac{29}{20}$. Find the original fraction. **OR** **(B)** A train covers a distance of 300 km at a uniform speed. If the speed of the train is increased by 5 km/hr, it takes 2 hours less in the journey. Find the original speed of the train.	5

Q34.	**(A)** The angle of elevation of the top of a chimney from the foot of a tower is 60° and the angle of depression of the foot of the chimney from the top of the tower is 30°. If the height of the tower is 40 meters, find the height of the chimney. Also, find the length of the wire tied from the top of the chimney to the top of tower. **OR** **(B)** The angles of depression of the top and bottom of a 50m high building from the top of a tower are 45° and 60° respectively. Find the height of the tower and the horizontal distance between the tower and the building. (*Use* $\sqrt{3}$ *= 1.73*)	5
Q35.	A solid toy is in the form of a hemisphere surmounted by a right circular cone of height 2cm and diameter of base 4cm. If a right circular cylinder circumscribes the toy, find the difference of the volumes of the cylinder and the toy. [*Use π = 3.14*]	5
	SECTION - E **(Case-study Based Questions)** *This section comprises of 3 case-study based questions of 4 marks each with three sub-parts.*	
Q36.	Carpooling is the sharing of car journeys so that more than one person travels in a car, and prevents the need for others to have to drive to a location themselves. By having more people using one vehicle, carpooling reduces each person's travel costs such as: fuel costs, tolls, and the stress of driving. Carpooling is also a more environmentally friendly and sustainable way to travel as sharing journeys reduces air pollution, carbon emissions, traffic congestion on the roads, and the need for parking spaces.   Three friends Amar, Bhavin and Chetanya live in societies represented by the points A(4,5), B(6,2) and C(2,6) respectively. They all work in offices located in a same building represented by the point O(0,0). Since they all go to same building every day, they decided to do carpooling to save money on petrol. Based on the above information, answer the following questions. i) What is the distance between B and C? ii) If Bhavin and Chetanya planned to meet at a club situated at the mid-point of the line joining the points B and C, find the coordinates of this point. iii) **(A)** Which society is farthest from the office? Also find its distance from the office. **OR** **(B)** Out of B and C which society is nearer to A? Also find their distances.	1 1 2

***Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26**

Q37. A water sprinkler is a device used to irrigate agricultural crops, lawns, landscapes, golf courses, and other areas. Water sprinklers can be used for residential, industrial, and agricultural usage.

. A water sprinkler is set to shoot a stream of water a distance of 21 m and rotate through an angle which is equal to complementary angle of 10°.



i) What is the area of sector in terms of arc length? 1

ii) What is the area of the watered region (in terms of $\boldsymbol{\pi}$)? 1

iii) **(A)** If the radius(***r***) changes to 28m, find the angle θ so that the area of the watered region remains the same. 2

OR

(B) If the radius(***r***) is increased from 21m to 28m and the angle remains the same, what is the increase in the area of the watered region?

***Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26**

Q38. One of four main blood types can be found in a human body. They are known as A, B, AB and O. Each blood type can be further classified as either a Rhesus positive (+) or Rhesus negative (−).For example, a possible combination is blood type O and Rhesus negative which is written as O^-

The data below shows the distribution of the blood types and Rhesus types of given blood type for a **Blood Donation Center** recorded (in percentages) for the year 2023.

BLOOD GROUP	RHESUS FACTOR	NUMBER OF PERSONS (in %)
O	O^-	x
	O^+	30
A	A^-	8
	A^+	24
B	B^-	6
	B^+	18
AB	AB^-	1
	AB^+	3

i) Find the value of x. 1

ii) Find the probability that a randomly selected person has a Rhesus negative blood type. 1

iii) **(A)** What is the probability that the person selected from the record is Rhesus positive but neither blood type A nor B? 2

OR

(B) People with blood type AB positive (AB^+) are known as the universal recipient and with blood type O negative (O^-) are known as universal donor. Find the probability of a selected person to be neither universal recipient nor universal donor.

***Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26**

MATHEMATICS BASIC – Code No. 241
MARKING SCHEME
CLASS - X (2025 - 26)

SECTION - A		
Q. No.	**Answer**	**Marks**
1.	**Answer – D** As, $2025 = 3^4 \times 5^4$ So, the exponent of 3 in the prime factorization of 2025 is **4**	**1**
2.	**Answer – B** On subtracting first equation from second equation, we get $2025\boldsymbol{x} + 2024\boldsymbol{y} - 2024\boldsymbol{x} - 2025\boldsymbol{y} = -1 - 1 \implies (\boldsymbol{x} - \boldsymbol{y}) = \boldsymbol{-2}$	**1**
3.	**Answer – D** As, $f(x) = \mathrm{k}(\mathrm{x}+2)(\mathrm{x}-5) \implies f(x) = \mathrm{k}(x^2 - 3\mathrm{x} - 10), \mathrm{k} \neq 0$ Since k can be any real number. So, there are Infinitely many such polynomials.	**1**
4.	**Answer – C** On simplification, given equations reduce to $(A)\ x^2 + 2x - 2 = 0$ (**Quadratic Equation**) $(B)\ 2\boldsymbol{x}^2 - 3x - 1 = 0$ (**Quadratic Equation**) (C) $3x + 1 = 0$ (***NOT a* Quadratic Equation**) (D) $4\boldsymbol{x}^2 + \boldsymbol{x} = 0$ (**Quadratic Equation**)	**1**
5.	**Answer – A** As, $2(\boldsymbol{x} + 10) = (3\boldsymbol{x} + 2) + 2x \implies x = 6$	**1**
6.	**Answer – B** As, $\frac{50(51)}{2} = 25k \implies k = 51$	**1**
7.	**Answer – D** Distance between the given points = $\sqrt{(\frac{1}{2} - \frac{\sqrt{3}}{2})^2 + (\frac{1}{2} + \frac{\sqrt{3}}{2})^2} = \sqrt{2}$	**1**
8.	**Answer – C** We know that, for the coordinates of a mirror image of a point in *x*-axis, abscissa remains the same and ordinate will be of opposite sign of the ordinate of given point. So, the Mirror image of the point (−3, 5) about x-axis is (−3, −5).	**1**
9.	**Answer – B** As, $\Delta\mathrm{ABC} \sim \Delta\mathrm{EFD} \implies \angle\mathrm{A} = \angle\mathrm{E}$	**1**

10.	**Answer – B** As, $\Delta ABC \sim \Delta PQR \Longrightarrow \frac{AB}{PQ} = \frac{BC}{QR} = \frac{AC}{PR} = \frac{1}{2} \Longrightarrow PQ = 6\text{ cm}, QR = 8\text{ cm}$ Perimeter of the triangle PQR (in cm) = 6 + 8 +10 = 24	**1**
	Question given for Visually impaired candidates **Answer – B** The solution is same as above.	**1**
11.	**Answer – A** From the figure, AE = 24 – r = AF. So, BF = 1 + r = 7 – r $\Longrightarrow$ r = 3 cm	**1**
	Question given for Visually Impaired candidates **Answer – B** As, PQ = PR = 24 cm So, Area of Quadrilateral PQOR (in cm^2) = $2 \times \frac{1}{2} \times 24 \times 10 = 240$	**1**
12.	**Answer – B** As, $\cot^2\mathbf{x} - \text{cosec}^2\mathbf{x} = -\mathbf{1}$, so it is **NOT** equal to Unity	**1**
13.	**Answer – C** As, Median class is 10-15. So, its upper limit is 15.	**1**
14.	**Answer – C** Since, 3 Median = Mode + 2 Mean. So, **a = 3 & b = 2.** Thus, (2***b*** + 3***a***) = 4 + 9 = 13	**1**
15.	**Answer – B** Radius (in cm) = $\sqrt{13^2 - 12^2} = 5$	**1**
16.	**Answer – A** As, ∠PAO= 90°. So, ∠APO = 115° − 90° = 25°	**1**
	Question given for Visually Impaired candidates **Answer – A** As, the chord is at a distance of 18 cm (more than the radius). So, the chord will be at a distance of 5 cm on the opposite side of the centre. Thus, length of the chord CD will be $2\sqrt{13^2 - 5^2} = 24\ cm$	**1**
17.	**Answer – C** As, $r_1 : r_2 = 3 : 4$. So, the ratio of their areas = $r_1^2 : r_2^2 = 9 : 16$	**1**
18.	**Answer – A** Since, the event is most unlikely to happen. Therefore, its probability is 0.0001	**1**
19.	**Answer – A** As**,** Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).	**1**

20.	**Answer – D** Since events given in Assertion are not equally likely, so probability of getting two heads is not $\frac{1}{3}$. Thus, Assertion (A) is false but reason (R) is true.	**1**
Section –B **[This section comprises of solution of very short answer type questions (VSA) of 2 marks each]**		
21 (A).	It can be observed that, $2 \times 5 \times 7 \times 11 + 11 \times 13 = 11 \times (70 + 13)$ = 11 x 83 which is the product of two factors other than 1. Therefore, it is a composite number. **OR**	**1** **1**
21 (B).	The smallest number which is divisible by any two numbers is their LCM. So, Number which is divisible by both 306 and 657 = LCM (306, 657) Since, 306 = $2^1 \times 3^2 \times 17^1$ and 657 = $3^2 \times 73$ LCM (306, 657) = $2^1 \times 3^2 \times 17^1 \times 73 = 22338$	**½** **1** **½**
22.	As, P(3, a) lies on the line L, so 3 + a = 5 $\Longrightarrow a = 2$ Now, the radius of the circle = CP = $\sqrt{3^2 + 2^2} = \sqrt{13}\, units$ **<u>Question given for Visually Impaired candidates</u>** Diameter of the circle = Distance between (0,0) and (6,8) = $\sqrt{6^2 + 8^2} = 10$ Radius of the circle = ½ (Diameter of the circle) = 5 units	**1** **1** **1½** **½**
23.	Sum of the zeroes = 2 – 3 = $-(\boldsymbol{a} + 1) \Longrightarrow a = 0$ Product of the zeroes = – 6 = $b \Longrightarrow b = -6$ Hence, $a = 0$ & $b = -6$	**1** **1**
24.	Discriminant, D = 16 + $12\sqrt{2}$ > 0 As, Discriminant is positive. So, Roots are real and distinct.	**1** **1**
25 (A).	$2\sin 30°\tan 60° - 3\cos^2 60°\sec^2 30° = 2\left(\frac{1}{2}\right)\left(\sqrt{3}\right) - 3\left(\frac{1}{2}\right)^2\left(\frac{2}{\sqrt{3}}\right)^2$ $= \sqrt{3} - 1$ **OR**	**1½** **½**
25 (B).	As, $\sin x.\cos x(\tan x + \cot x) = \sin x.\cos x\left(\frac{\sin x}{\cos x} + \frac{\cos x}{\sin x}\right)$. $= \sin x.\cos x\left(\frac{1}{\cos x.\sin x}\right)$ = 1 (Constant) Since, the value of sinx. cosx (tanx + cotx) is constant, so its equal 1 for all angles.	**½** **1½**

Section –C

[This section comprises of solution short answer type questions (SA) of 3 marks each]

26.

To prove that $(\sqrt{2}-\sqrt{5})$ is an irrational number, we will use the contradiction Method.

Let, if possible, $\sqrt{2}-\sqrt{5}=x$, where x is any rational number (Clearly $x \neq 0$)

so, $\sqrt{2}=x+\sqrt{5} \Rightarrow 2=\left(x+\sqrt{5}\right)^2$ **1**

$\Rightarrow 2=x^2+5+2\sqrt{5}x$

$\Rightarrow -x^2-3=2\sqrt{5}x$

$\Rightarrow \frac{-x^2-3}{2x}=\sqrt{5}$ ……(1) **1**

(Note: $\sqrt{5}$ is an irrational number, as the square root of any prime number is Always an irrational number)

In equation (1), LHS is a rational number while RHS is an irrational number but an irrational number cannot be equal to a rational number.
So, our assumption is wrong.

Thus, $(\sqrt{2}-\sqrt{5})$ is an irrational number. **1**

27 (A).

Area of land (in hectares)	No. of families	
1 – 3	20	
3 – 5	45	f_0
5 – 7 (Modal class)	80	f_1
7 – 9	55	f_2
9 – 11	40	
11 – 13	12	

1

∴ Modal class = 5 – 7 , l = 5, h = 2

Mode = $l + \left(\frac{f_1-f_0}{2f_1-f_0-f_2}\right)h = 5 + \left(\frac{80-45}{2(80)-45-55}\right) 2 = 6.166…..$ **2**

Hence, modal agriculture holdings of the village is 6.17 hectare (approx.)

OR

27 (B).

Class interval	f_i	x_i (Mid-value)	$d_i = \frac{x_i - 30}{h}$	$f_i d_i$
0-20	7	10	-1	-7
20-40	p	30	0	0
40-60	10	50	1	10
60-80	9	70	2	18
80-100	13	90	3	39
Total	**39 + p**			**60**

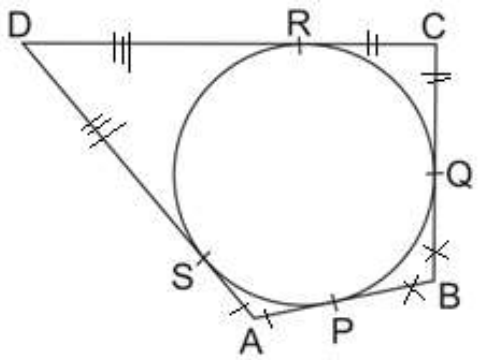
2

Assumed mean(A) = 30, Width of the interval (h) = 20

$\text{Mean} = 30 + \frac{60}{39+\text{p}} \times 20 = 54 \Longrightarrow 50 = 39 + \text{p} \Longrightarrow \text{p} = 11$

1

28.



Tangents drawn to a circle from an external point are equal.

So, AP = AS, PB = BQ,
CR = CQ, DR = DS

1½

On adding the above equations,

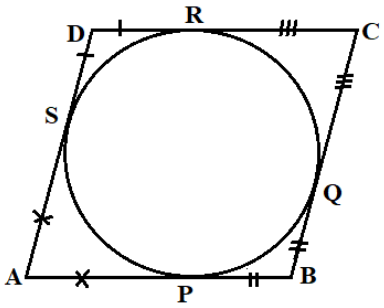
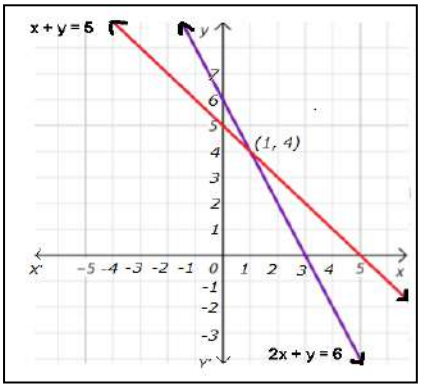
$(\text{AP} + \text{PB}) + (\text{CR} + \text{RD}) = (\text{AS} + \text{BQ}) + (\text{CQ} + \text{DS})$

1

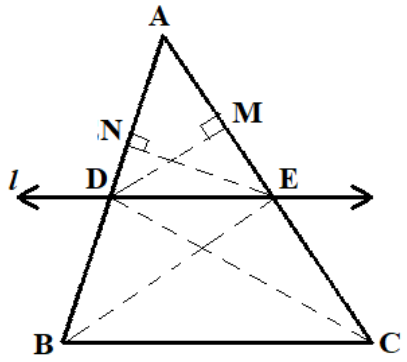
$\Longrightarrow \text{AB} + \text{CD} = \text{AD} + \text{BC}$

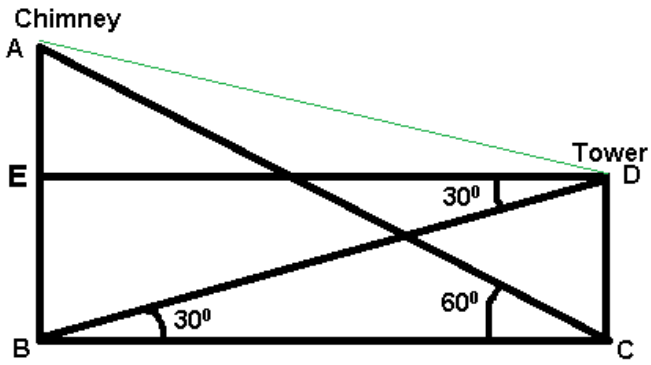
$\Longrightarrow \frac{\text{AB} + \text{CD}}{\text{AD} + \text{BC}} = 1$

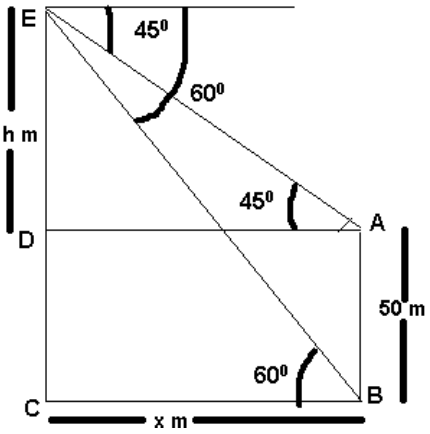
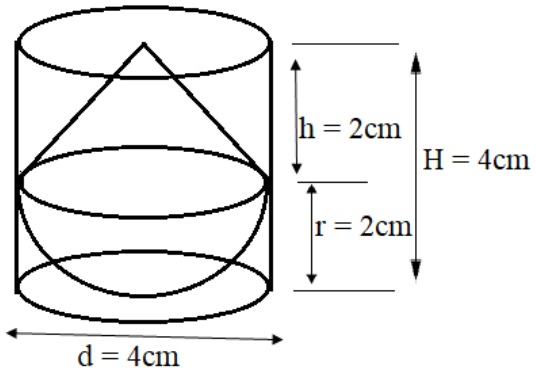
½

	Question given for Visually Impaired candidates Parallelogram ABCD circumscribes a circle as shown in figure. Tangents drawn to a circle from an external point are equal So, AP = AS, PB = BQ, CR = CQ, DR = DS  On adding the above equations, $(AP + PB) + (CR + RD) = (AS + BQ) + (CQ + DS)$ $\Rightarrow AB + CD = AD + BC$ $\Rightarrow 2AB = 2BC$ (Opposite sides of parallelogram are equal) Thus, AB = BC Since, in Parallelogram ABCD a pair of adjacent sides are equal. Hence, ABCD is a rhombus.	**1½** **1** **½**
29 (A).	According to the question, 1000x + 200y = 42000000 ⇒ 5x + y = 210000 …… (1) x + y = 50000 ……(2) (1) – (2) ⇒ 4x = 160000 ⇒ x = 40000 Substituting value of x in (2), y = 10000 ∴ Number of adults attended the match is 40000 and number of children attended is 10000 **OR**	**1** **½** **1** **½**
29 (B).	$2x + y = 6$ 	x	2	3	0
---	---	---	---
y	2	0	6 | $x + y = 5$ | x	2	5	0
---	---	---	---
y	3	0	5	 Hence solution is x = 1, y = 4  	**2** For graph **1**

	<u>Question given for Visually Impaired candidates</u> **29(A)** Solution and marks distribution is same as above **OR**	
	29(B) Let unit place digit be x & tens place digit be y ∴ original number = 10y+x Reversed number = 10x+y Given, $10y + x = 6(x + y)$ $\Rightarrow 5x - 4y = 0$ ……(1) And $(10y + x) - (10x + y) = 9$ $\Rightarrow -9x + 9y = 9$ $\Rightarrow x - y = -1$ ……(2) On solving (1) and (2) , we get x = 4, y= 5 ∴ The number is 54	**1** **1** **1**
30.	LHS = $(\sin x - \cos x + 1).(\sec x - \tan x)$ $= (\sin x - \cos x + 1).\left(\frac{1-\sin x}{\cos x}\right)$ $= (1 + \sin x)\left(\frac{1-\sin x}{\cos x}\right) - \cos x\left(\frac{1-\sin x}{\cos x}\right)$ $= \left(\frac{1-\sin^2 x}{\cos x}\right) - (1 - \sin x)$ $= \frac{\cos^2 x}{\cos x} - 1 + \sin x = \sin x + \cos x - 1$ = RHS	**1** **1** **1**
31.	As, $S_n = 5n^2 - n$ Now, nth Term is given by $a_n = S_n - S_{n-1}$ $a_n = [5n^2 - n] - [5(n-1)^2 - (n-1)]$ $a_n = 5[n^2 - (n-1)^2] - [n - (n-1)]$ $a_n = 5[2n-1] - [1]$ $a_n = 10n - 6$	**½** **1** **1½**
Section –D **[This section comprises of solution of long answer type questions (LA) of 5 marks each]**		
32.	Given: In ΔABC, a line *l* drawn parallel to side BC intersects AB and AC at D and E respectively. To prove: $\frac{AD}{DB} = \frac{AE}{EC}$ Construction: Draw perpendicular from D and E to AC and AB i.e., DM⊥AC and EN⊥AB. Join DC and BE.	**½** **½** **½**

	 Proof: $\frac{ar(\Delta ADE)}{ar(\Delta BDE)} = \frac{\frac{1}{2}(AD)(EN)}{\frac{1}{2}(BD)(EN)} = \frac{AD}{DB}$ .....(1) $\frac{ar(\Delta ADE)}{ar(\Delta CED)} = \frac{\frac{1}{2}(AE)(DM)}{\frac{1}{2}(EC)(DM)} = \frac{AE}{EC}$ ..... (2) Also, $ar(\Delta BDE) = ar(\Delta CED)$ .....(3) (Triangles on same base and between same parallel are equal in area) From (1), (2) & (3), we get $\frac{ar(\Delta ADE)}{ar(\Delta BDE)} = \frac{ar(\Delta ADE)}{ar(\Delta CED)}$ $\Rightarrow \frac{AD}{DB} = \frac{AE}{EC}$ (Hence proved)	½ (for correct figure) 1 ½ ½ 1
33 (A)	Let the denominator of the required fraction be x Then, its numerator = $x - 3$ So, the original fraction is $\frac{x-3}{x}$ Given, $\frac{(x-3)+2}{x+2} + \frac{(x-3)}{x} = \frac{29}{20}$ $\frac{(x-1)}{x+2} + \frac{(x-3)}{x} = \frac{29}{20}$ $\frac{(x-1)x + (x-3)(x+2)}{(x+2)x} = \frac{29}{20}$ $\frac{x^2 - x + x^2 - x - 6}{x^2 + 2x} = \frac{29}{20}$ $20(2x^2 - 2x - 6) = 29(x^2 + 2x)$ $11x^2 - 98x - 120 = 0$ $11x^2 - 110x + 12x - 120 = 0$ $11x(x-10) + 12(x-10) = 0$ $(11x + 12)(x - 10) = 0$ $x = 10$ or $x = -\frac{12}{11}$ (not possible as it is not an integer) $\therefore x = 10$ Hence, the required fraction is $\frac{7}{10}$ **OR**	1 1 1½ 1 ½

33 (B)	Let the original speed of the train be x km/hr Distance travelled be 300km $\therefore$ Original time (t_o) = $\frac{300}{x}$ hr New speed of the train = (x+5) km/hr $\therefore$ New time (t_n) = $\frac{300}{x+5}$ hr Given, $t_o - t_n = 2$ $\frac{300}{x} - \frac{300}{x+5} = 2$ $\frac{300(x+5) - 300(x)}{x(x+5)} = 2$ $\frac{1500}{x^2+5x} = 2$ $x^2 + 5x - 750 = 0$ $x^2 + 30x - 25x - 750 = 0$ $x(x+30) - 25(x+30) = 0$ $(x-25)(x+30) = 0$ $x = 25$ or $x = -30$(not possible as speed cannot be negative) $\therefore x = 25$ Hence, the original speed of the train is 25km/hr	½ ½ **1** **1½** **1** ½
34 (A)	Let BA be the Chimney and CD be the tower.  **40m** In $\Delta CBD, tan30° = \frac{40}{BC} \Longrightarrow BC = 40\sqrt{3}\, m$ In $\Delta ABC, tan60° = \frac{AB}{40\sqrt{3}} \Longrightarrow AB = 120\, m$ AE = (120 – 40) m = 80m, ED = BC = $40\sqrt{3}$m Now, $AD = \sqrt{AE^2 + ED^2} = \sqrt{6400 + 4800} = 40\sqrt{7}\, m$ Thus, length of wire tied from the top of the chimney to the top of tower is $40\sqrt{7}\, m$. **OR**	**1 (for correct figure)** **1½** **1½** **1**

34 (B)	Let EC be the tower and AB be the building.  In $\Delta EDA, tan45° = \frac{h}{x} \Longrightarrow h = x$ In $\Delta EBC, tan60° = \frac{EC}{BC} \Longrightarrow h + 50 = \sqrt{3}h \Longrightarrow h = \frac{50}{\sqrt{3}-1} = 25(\sqrt{3}+1)m$ Thus, $h = 68.25\, m = x$ (Horizontal distance between the tower and building) Now, height of the tower =68.25 + 50 = 118.25 m	**1 (for correct figure)** **1½** **1½** **½** **½**
35.	Volume of toy = $Vol_{Hemi\text{-}sphere} + Vol_{Cone}$  $= \frac{2}{3}\pi r^3 + \frac{1}{3}\pi r^2 h = \frac{1}{3}\pi r^2(2r+h) = 25.12\ cm^3$ Volume of circumscribing cylinder = $\pi r^2 H = 50.24\ cm^3$ Now, difference in the volumes of circumscribing cylinder and the toy = Vol. of cylinder – Vol. of toy = (50.24 – 25.12) cm^3 = 25.12 cm^3 Hence, difference in the volumes of circumscribing cylinder and the toy is 25.12cm^3.	**1** **(for correct figure)** **2** **1** **1**

Section –E

[This section comprises solution of 3 case- study based questions of 4 marks each with three sub parts of 1, 1 and 2 marks each respectively]

36.	(i) Distance between B and C = $4\sqrt{2}\ units$	**1**
	(ii) Mid-point of the line joining the points B and C = (4, 4)	**1**
	(iii) **(A)** As, OA = $\sqrt{41}\ units$, OB = $\sqrt{40}\ units$, OC = $\sqrt{40}\ units$	**1½**
	So, society A is the farthest from the office.	**½**
	OR	
	(iii) **(B)** As, AB = $\sqrt{13}\ units$, AC = $\sqrt{5}\ units$	**1½**
	So, Society C is nearer to society A.	**½**
37.	(i) Area of sector = $\frac{(\text{Arc length} \times \text{radius})}{2}$	**1**
	(ii) Area of sector = $\frac{80}{360}\pi \times 441 = 98\pi\ m^2$	**1**
	(iii) **(A)** $\frac{80}{360}\pi \times 441 = \frac{\theta}{360}\pi \times 28^2$	**1**
	$\theta = 45°$	**1**
	OR	
	(iii) **(B)** Increase in the area of the lawn watered $= \frac{80}{360}\pi \times (784 - 441)$	**1**
	$= 239.56\ \text{m}^2$	**1**
38.	(i) x = 100 – (30 – 32 – 24 – 4) = 10	**1**
	(ii) P(selected person to have Rhesus negative blood type) = $\frac{10+8+6+1}{100}$ $= \frac{25}{100}$ or $\frac{1}{4}$	**1**
	(iii) **(A)** P(person is Rhesus positive but neither A nor B type blood)= $\frac{30+3}{100}$ $= \frac{33}{100}$	**1+1**
	OR	
	(iii) **(B)** P(person is neither universal recipient nor universal donor) $= 1 - \frac{(3+10)}{100}$	**1½**
	$= 1 - \frac{13}{100}$	**½**
	$= \frac{87}{100}$	

MATHEMATICS STANDARD – Code No.041
SAMPLE QUESTION PAPER
CLASS – X (2025-26)

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 questions 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 $\pi = \frac{22}{7}$ wherever required if not stated.
10. Use of calculators is not allowed.

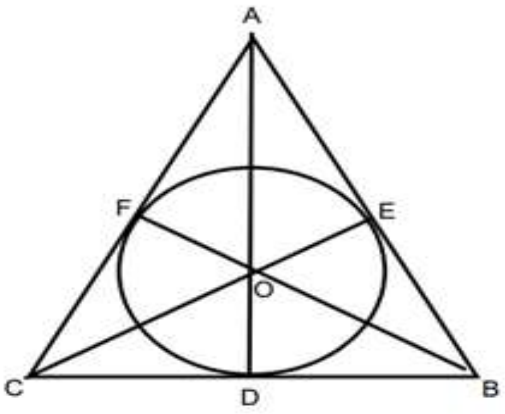
(Section A)
Section A consists of 20 questions of 1 mark each.

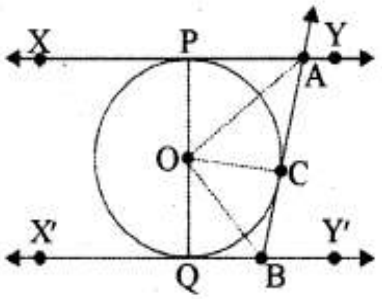
Q.No.	Questions	Marks
1.	If $a = 2^2 \times 3^x$, $b = 2^2 \times 3 \times 5$, $c = 2^2 \times 3 \times 7$ and LCM $(a, b, c) = 3780$, then x is equal to (A) 1 (B) 2 (C) 3 (D) 0	**1**
2.	The shortest distance (in units) of the point (2,3) from y-axis is (A) 2 (B) 3 (C) 5 (D) 1	**1**
3.	If the lines given by 3*x* +2k*y* =2 and 2*x*+5*y* +1=0 are not parallel, then k has to be (A) $\frac{15}{4}$ (B) $\neq\frac{15}{4}$ (C) any rational number (D) any rational number having 4 as denominator	**1**

4.	A quadrilateral ABCD is drawn to circumscribe a circle. If BC=7cm, CD=4cm and AD=3cm, then the length of AB is (A) 3cm (B) 4cm (C) 6cm (D) 7cm	**1**
5.	If $sec\theta + tan\theta = x$,then $sec\theta - tan\theta$ will be (A) x (B) x^2 (C) $\frac{2}{x}$ (D) $\frac{1}{x}$	**1**
6.	Which one of the following is not a quadratic equation? (A) $(x+2)^2 = 2(x+3)$ (B) $x^2 + 3x = (-1)(1-3x)^2$ (C) $x^3 - x^2 + 2x + 1 = (x+1)^3$ (D) $(x+2)(x+1) = x^2 + 2x + 3$	**1**
7.	Given below is the picture of the Olympic rings made by taking five congruent circles of radius 1cm each, intersecting in such a way that the chord formed by joining the point of intersection of two circles is also of length 1cm.Total area of all the dotted regions (assuming the thickness of the rings to be negligible) is  (A) $4[\frac{\pi}{12} - \frac{\sqrt{3}}{4}]$ cm^2 (B) $[\frac{\pi}{6} - \frac{\sqrt{3}}{4}]$ cm^2 (C) $4[\frac{\pi}{6} - \frac{\sqrt{3}}{4}]$ cm^2 (D) $8[\frac{\pi}{6} - \frac{\sqrt{3}}{4}]$ cm^2 **For Visually Impaired candidates** The area of the circle that can be inscribed in a square of 6 cm is (A) 36πcm^2 (B) 18πcm^2 (C) 12πcm^2 (D) 9πcm^2	**1**
8.	A pair of dice is tossed. The probability of not getting the sum eight is (A) $\frac{5}{36}$ (B) $\frac{31}{36}$ (C) $\frac{5}{18}$ (D) $\frac{5}{9}$	**1**
9.	If $2\sin 5x = \sqrt{3}$,$0^\circ \leq x \leq 90^o$, then x is equal to (A) 10^o (B) 12^o (C) 20^o (D) 50^o	**1**
10.	The sum of two numbers is 1215 and their HCF is 81, then the possible pairs of such numbers are (A) 2 (B) 3 (C) 4 (D) 5	**1**

***Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26**

11.	If the area of the base of a right circular cone is 51cm^2 and it's volume is 85cm^2, then the height of the cone is given as (A) $\frac{5}{6}$ cm (B) $\frac{5}{3}$cm (C) $\frac{5}{2}$cm (D) 5cm	**1**
12.	If zeroes of the quadratic polynomial ax^2 + bx +c (a, c ≠0) are equal, then (A) c and b must have opposite signs (B) c and a must have opposite signs (C) c and b must have same signs (D) c and a must have same signs	**1**
13.	The area (in cm^2) of a sector of a circle of radius 21cm cut off by an arc of length 22cm is (A) 441 (B) 321 (C) 231 (D) 221	**1**
14.	If ∆ABC ~∆DEF, AB=6cm, DE=9cm, EF=6cm and FD=12cm, then the perimeter of ∆ABC is (A) 28cm (B) 28.5cm (C) 18cm (D) 23cm	**1**
15.	If the probability of the letter chosen at random from the letters of the word "Mathematics" to be a vowel is $\frac{2}{2x+1}$, then x is equal to (A) $\frac{4}{11}$ (B) $\frac{9}{4}$ (C) $\frac{11}{4}$ (D) $\frac{4}{9}$	**1**
16.	The points A(9,0), B(9, -6) ,C(-9,0) and D(-9,6) are the vertices of a (A) Square (B) Rectangle (C) Parallelogram (D) Trapezium	**1**
17.	The median of a set of 9 distinct observation is 20.5. If each of the observations of a set is increased by 2,then the median of a new set (A) is increased by 2 (B) is decreased by 2 (C) is two times the original number (D) Remains same as that of original observations	**1**
18.	The length of a tangent drawn to a circle of radius 9 cm from a point at a distance of 41cm from the centre of the circle is (A) 40cm (B) 9cm (C) 41cm (D) 50cm	**1**
	DIRECTIONS: In the question number 19 and 20, a statement of **Assertion (A)** is followed by a statement of **Reason (R)**. **Choose the correct option:** (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 explanation of assertion (A) (C) Assertion (A) is true but reason (R) is false. (D) Assertion (A) is false but reason (R) is true.	

19.	**Assertion (A):** The number 5^n cannot end with the digit 0, where n is a natural number **Reason (R):** A number ends with 0, if its prime factorization contains both 2 and 5	**1**
20.	**Assertion (A):** If cosA + $\cos^2$A=1, then $\sin^2$A + $\sin^4$A =1 **Reason (R):** $\sin^2$A + $\cos^2$A =1	**1**
	(Section – B) **Section B consists of 5 questions of 2 marks each.**	
21.(A) **(B)**	The A.P 8, 10, 12,……. has 60 terms. Find the sum of last 10 terms. **OR** Find the middle term of A.P 6,13, 20, ……., 230	**2**
22.	If $sin(A+B) = 1$ and $cos(A-B) = \frac{\sqrt{3}}{2}$,$0° < A, B < 90°$, find the measure of angles A and B.	**2**
23.	If AP and DQ are medians of triangles ABC and DEF respectively, where ∆ABC~ ∆DEF, then prove that $\frac{AB}{DE} = \frac{AP}{DQ}$	**2**
24. **(A)** **(B)**	A horse, a cow and a goat are tied, each by ropes of length 14m, at the corners A, B and C respectively, of a grassy triangular field ABC with sides of lengths 35m, 40m and 50 m. Find the area of grass field that can be grazed by them. **OR** Find the area of the major segment (in terms of π) of a circle of radius 5cm, formed by a chord subtending an angle of 90˚ at the centre.	**2**
25.	A ∆ABC is drawn to circumscribe a circle of radius 4 cm such that the segments BD and DC are of lengths 10 cm and 8 cm respectively. Find the lengths of the sides AB and AC, if it is given that ar(∆ABC) = 90cm^2  **For Visually Impaired candidates:** A circle is inscribed in a right-angled triangle ABC, right angled at B. If BC=7cm and AB=24cm, find the radius of the circle	**2**

	(Section – C) **Section C consists of 6 questions of 3 marks each.**	
26.	In Figure, XY and X′Y′ are two parallel tangents to a circle with centre O and another tangent AB with point of contact C intersecting XY at A and X′Y′ at B. Prove that ∠ AOB = 90°  **For Visually Impaired candidates:** Two tangents PA and PB are drawn to a circle with centre O from an external point P. Prove that ∠APB= 2(∠OAB)	**3**
27.	In a workshop, the number of teachers of English, Hindi and Science are 36, 60 and 84 respectively. Find the minimum number of rooms required, if in each room the same number of teachers are to be seated and all of them being of the same subject.	**3**
28.	Find the zeroes of the quadratic polynomial $2x^2 - (1 + 2\sqrt{2})\,x + \sqrt{2}$ and verify the relationship between the zeroes and coefficents of the polynomial.	**3**
29.	If $sin\theta + cos\theta = \sqrt{3}$,then prove that $tan\theta + cot\theta = 1$ **OR** Prove that $\frac{cosA - sinA + 1}{cosA + sinA - 1}$ =cosecA + cotA	**3**
30.	On a particular day, Vidhi and Unnati couldn't decide on who would get to drive the car. They had one coin each and flipped their coin exactly three times. The following was agreed upon: 1. If Vidhi gets two heads in a row, she would drive the car 2. If Unnati gets a head immediately followed by a tail, she would drive the car. Who has greater probability to drive the car that day? Justify your answer.	**3**
31.(A)	The monthly income of Aryan and Babban are in the ratio 3:4 and their monthly expenditures are in ratio 5:7. If each saves ₹ 15,000 per month, find their monthly incomes. **OR**	**3**
(B)	Solve the following system of equations graphically: $2x + y$ =6, 2 $x - y$ – 2=0. Find the area of the triangle so formed by two lines and x -axis. **For Visually Impaired candidates**: Five years hence, fathers age will be three times the age of son. Five years ago, father was seven times as old as his son. Find their present ages.	

(Section – D)
Section D consists of 4 questions of 5 marks each

32. A train travels at a certain average speed for a distance of 63km and then travels at a distance of 72km at an average speed of 6km/hr more than its original speed. If it takes 3 hours to complete the total journey, what is the original average speed? **5**

33. Prove that if a line is drawn parallel to one side of a triangle to intersect the other two sides in distinct points, the other two sides are divided in the sameratio. **5**

Hence in ΔPQR, prove that a line ℓ intersects the sides PQ and PR of a ΔPQR at L and M respectively such that LM II QR. If PL = 5.7cm, PQ=15.2cm and MR=5.5cm, then find the length of PM (in cm)

34.(A) From a solid right circular cone, whose height is 6cm and radius of base is 12cm, a right circular cylindrical cavity of height 3cm and radius 4cm is hollowed out such that bases of cone and cylinder form concentric circles. Find the surface area of the remaining solid in terms of π. **5**

OR

(B) An empty cone of radius 3cm and height 12cm is filled with ice-cream such that the lower part of the cone which is $(\frac{1}{6})^{th}$ of the volume of the cone is unfilled (empty) but a hemisphere is formed on the top. Find the volume of the ice-cream.

35.(A) If the mode of the following distribution is 55, then find the value of x. Hence, find the mean. **5**

Class Interval	$0-15$	$15-30$	$30-45$	$45-60$	$60-75$	$75-90$
Frequency	10	7	x	15	10	12

OR

(B) A survey regarding heights (in cm) of 51 girls of class X of a school was conducted and the following data was obtained:

Heights (in cm)	Number of girls
less than 140	04
less than 145	11
less than 150	29
less than 155	40
less than 160	46
less than 165	51

Find the median height of girls. If mode of the above distribution is 148.05, find the mean using empirical formula.

(Section – E)
Section E consists of 3 case study-based questions of 4 marks each.

36. In a class, the teacher asks every student to write an example of A.P. Two boys Aryan and Roshan writes the progression as $-5, -2, 1, 4, \ldots\ldots$ and 187, 184, 181, …. respectively. Now the teacher asks his various students the following questions on progression.

Help the students to find answers for the following:

i. Find the sum of the common difference of two progressions. **1**

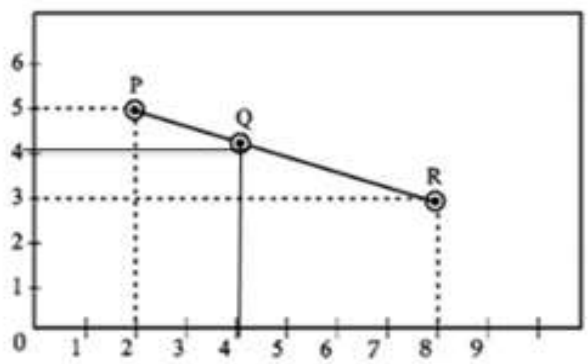
ii. Find the 34^{th} term of progression written by Roshan. **1**

iii. (A) Find the sum of first 10 terms of the progression written by Aryan. **2**

OR

(B) Which term of the progressions will have the same value? **2**

37. A group of class X students goes to picnic during winter holidays. The position of three friends Aman, Kirti and Chahat are shown by the points P, Q and R



(i) Find the distance between P and R. **1**

(ii) Is Q, the midpoint of PR? Justify by finding midpoint of PR. **1**

(iii) (A) Find the point on x-axis which is equidistant from P and Q. **2**

OR

(B) Let S be a point which divides the line joining PQ in ratio 2:3. Find the coordinates of S. **2**

For Visually Impaired Candidates:

A group of class X students goes to picnic during winter holidays. Aman, Kirti and Chahat are three friends. The position of three friends Aman, Kirti and Chahat are shown by the points P, Q and R.
The co-ordinates of P (2,5), Q (4,4) and R (8,3) are given.

(i) Find the distance between P and R. **1**

(ii) Is Q the midpoint of PR? Justify by finding midpoint of PR. **1**

(iii) (A) Find the point on x-axis which is equidistant from P and Q. **2**

OR

(B) Let S be a point which divides the line joining PQ in ratio 2:3. Find the coordinates of S. **2**

38.	India gate (formerly known as All India war memorial) is located near Karthavya path. (formerly Rajpath) at New Delhi. It stands as a memorial to 74187 soldiers of Indian Army, who gave their life in the first world war. This 42m tall structure was designed by Sir Edwin Lutyens in the style of Roman triumphal arches. A student Shreya of height 1 m visited India Gate as a part of her study tour. 	
	i. What is the angle of elevation from Shreya's eye to the top of India Gate, if she is standing at a distance of 41m away from the India Gate?	**1**
	ii. If Shreya observes the angle of elevation from her eye to the top of India Gate to be 60^{o}, then how far is the she standing from the base of the India Gate?	**1**
	iii. (A) If the angle of elevation from Shreya's eye changes from 45° to 30°, when she moves some distance back from the original position. Find the distance she moves back.	**2**
	OR	
	(B) If Shreya moves to a point which is at a distance of $\frac{41}{\sqrt{3}}$m **from** the India Gate, then find the angle of elevation made by her eye to the top of India Gate.	**2**

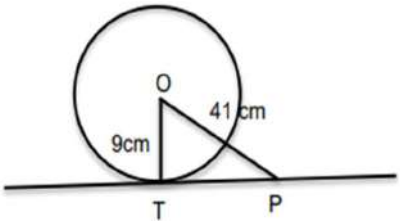
***Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26**

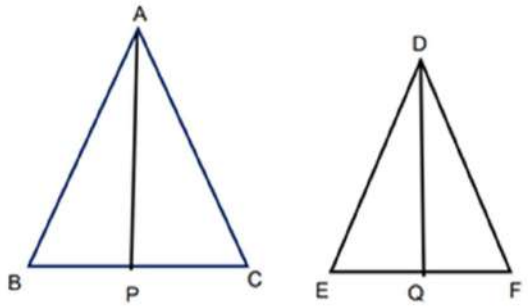
MATHEMATICS STANDARD – Code No.041
MARKING SCHEME
CLASS – X (2025-26)

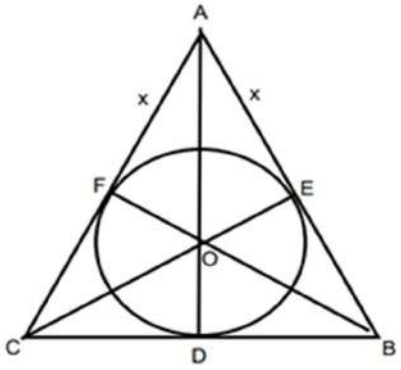
Maximum Marks: 80 **Time: 3 hours**

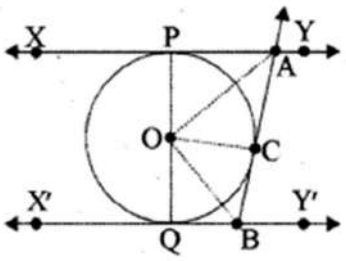
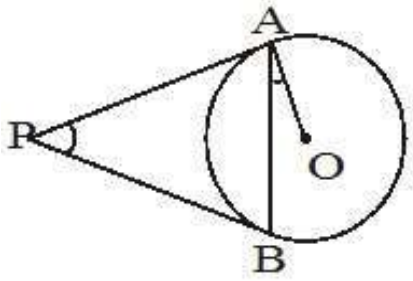
Q.No.	Section A	Marks
1.	(C) 3 LCM$(a, b, c) = 2^2 \times 3^x \times 5 \times 7 = 3780$ $140 \times 3^x = 3780$ $3^x = 27 = 3^3$ $x = 3$	**1**
2.	(A) 2 As shortest distance from (2, 3) to y-axis is the x coordinate, i.e., 2.	**1**
3.	(B) $k \neq \frac{15}{4}$ $\frac{3}{2} \neq \frac{2k}{5}$, hence $k \neq \frac{15}{4}$	**1**
4.	(C) 6cm AB+CD=AD+BC AB+4=3+7 AB=6cm	**1**
5.	(D) $\frac{1}{x}$ $\frac{1}{sec\theta+tan\theta} = \frac{(sec\theta-tan\theta)}{(sec\theta+tan\theta)(sec\theta-tan\theta)} = \frac{(sec\theta-tan\theta)}{1}$ = secϴ-tanϴ	**1**
6.	(D) $(x+2)(x+1) = x^2+2x+3$, so, $x^2+3x+2 = x^2+2x+3$ gives $x-1=0$ It's not a quadratic equation.	**1**
7.	D) $8[\frac{\pi}{6} - \frac{\sqrt{3}}{4}]$ cm^2  Required Area=8 × area of one segment (with r = 1cm and $\theta = 60^\circ$) =8x ($\frac{60^\circ}{360^\circ}$ x π x $1^2 - \frac{\sqrt{3}}{4}$ x 1^2) = $8[\frac{\pi}{6} - \frac{\sqrt{3}}{4}]$ cm^2	**1**

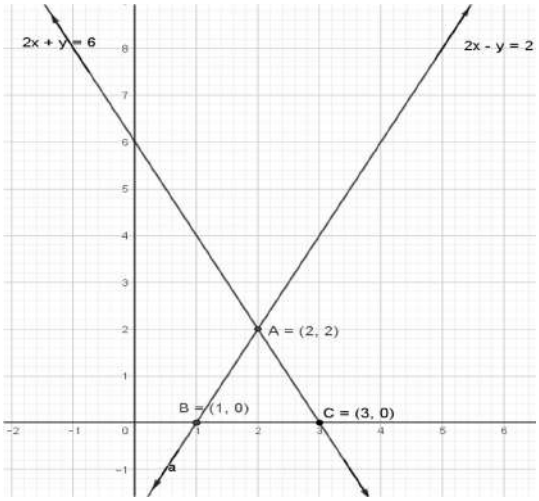
	For Visually Impaired candidates: (D) 9πcm^2 area of circle=$\pi(3^2)$ $=9\,\pi$ cm^2	
8.	(B) $\frac{31}{36}$ Probability of getting sum 8 is $\frac{5}{36}$ Probability of not getting sum 8 is $\frac{31}{36}$	**1**
9.	(B) $12°$ $\sin 5x = \frac{\sqrt{3}}{2}$ So, $5x = 60°$ And hence $x = 12°$	**1**
10.	(C) 4 Since HCF=81, the numbers can be $81x$ and $81y$ $81x + 81y = 1215$ $x + y = 15$ which gives four pairs as (1,14), (2,13), (4,11), (7,8)	**1**
11.	(D) 5cm $\pi r^2 = 51$ $V=\frac{1}{3} \times \pi r^2 \times h$ $85 = \frac{1}{3} \times 51 \times h$ $h= \frac{85}{17} = 5cm$	**1**
12.	(D) As for equal roots to the corresponding equation, $b^2 = 4ac$ Hence $ac = \frac{b^2}{4}$ And hence $ac > 0 \Rightarrow$ c and a must have same signs	**1**
13.	(C) 231 Area of sector $= \frac{1}{2} \times l \times r$ $= \frac{1}{2} \times 22 \times 21 = 231$cm^2	**1**

14.	(C) 18cm $\Delta ABC \sim \Delta DEF$ $\frac{AB}{DE} = \frac{BC}{EF} = \frac{AC}{DF} = \frac{Perimeter\ of\ \Delta ABC}{Perimeter\ of\ \Delta DEF}$ $\frac{6}{9} = \frac{Perimeter\ of\ \Delta ABC}{27}$ Perimeter of Δ ABC= 18cm	**1**
15.	(B) $\frac{9}{4}$ Probability of getting vowels in the word Mathematics is $\frac{4}{11}$, So, $\frac{2}{2x+1} = \frac{4}{11}$ $\Rightarrow x = \frac{9}{4}$	**1**
16.	(C) Parallelogram By visualising the figure by plotting points in co-ordinate plane it can be concluded it is a Parallelogram.	**1**
17.	(A) median is increased by 2	**1**
18.	(A) 40cm  Since, tangent is perpendicular to the radius at the point of contact In ΔOPT, right angled at T $OP^2=OT^2+TP^2$ $41^2=9^2+TP^2$ TP^2= 1681-81=1600 TP=40cm	**1**
19.	(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A)	**1**
20.	(A) $\cos A+\cos^2 A=1$ ---------(i) gives $\cos A= \sin^2 A$------(ii) (using $\sin^2 A+ \cos^2 A=1$) Substituting value of cos A from (ii) in (i) $\sin^2 A +\sin^4 A=1$ $\therefore$ Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A)	**1**

	(Section – B)	
21. **(A)**	n =60, a =8 and d=2 t_{60}= 8 + 59(2) =126 t_{51}= 108 Hence t_{51} + t_{52}+……..+ t_{60}= $\frac{10}{2}$(108 +126) =1170 **OR**	½ ½ **1**
(B)	230 = 6 + (n -1)7 gives n=33 ∴ Middle Term = t_{17}= 6 + (16)(7) = 118	**1** **1**
22.	A+B = 90° and A – B= 30° A=60° and B =30°	**1** **1**
23.	 △ABC~△DEF ⇒$\frac{AB}{DE}$ =$\frac{BC}{EF}$ $\frac{AB}{DE}$ =$\frac{2B}{2EQ}$ (AP and DQ are the medians) $\frac{AB}{DE}$ =$\frac{BP}{EQ}$ In △ABP and △DEQ $\frac{AB}{DE}$ =$\frac{BP}{EQ}$ ∠B=∠E (△ABC~△DEF) ⇒△ABP ~△DEQ Hence, $\frac{AB}{DE}$ = $\frac{AP}{DQ}$	½ ½ ½ ½
24.(A)	area of grass field that can be grazed by them =$\frac{\theta_1}{360°} \times \pi r^2 + \frac{\theta_2}{360°} \times \pi r^2 + \frac{\theta_3}{360°} x \pi r^2$ =$\frac{\pi r^2}{360°}$ (θ_1 + θ_2 + θ_3) =$\frac{\pi r^2}{360°} \times 180°$ = $\frac{22}{7} \times \frac{14\ X\ 14}{2}$ =308 m^2	**1** **1**

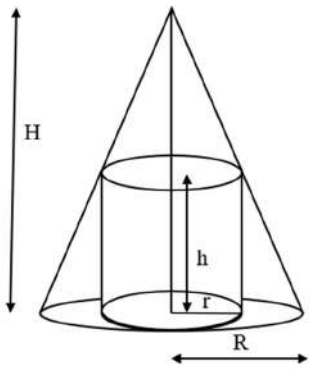
	OR	
(B)	Area of minor segment= Area of sector − area of triangle $=\frac{90°}{360°}\pi\ r^2 - \frac{1}{2}\times r^2$ $=(\frac{25}{4}\pi - \frac{25}{2})$ cm^2 Area of major segment = Area of circle – Area of minor segment $=\pi\ 5^2 - (\frac{25}{4}\pi - \frac{25}{2})$ $= 25\pi - \frac{25}{4}\pi + \frac{25}{2}$ $= (\frac{75}{4}\pi + \frac{25}{2})$ cm^2	**1** **1**
25.	 Let r be the radius of the inscribed circle BD=BE=10cm CD=CF=8cm Let AF=AE= x ar(△ABC) =ar(△AOC) + ar(△BOC) + ar(△AOB) $=\frac{1}{2}\times$ r x AC + $\frac{1}{2}\times$ r × BC +$\frac{1}{2}\times$ r × AB 90 = $\frac{1}{2}\times 4\ (x + 8+18+ x +10)$ x = 4.5cm ∴ AB=4.5+10=14.5cm AC=4.5+8=12.5cm **For Visually Impaired candidates:** AC^2=AB^2+BC^2= 24^2+7^2=625 AC=25cm Area of ∆ABC=$\frac{1}{2}\times 7\times 24$=84cm^2 -----(i) Let r=radius of circle Also, Area of ∆ABC=$\frac{1}{2}$ (24r+25r+7r) $=\frac{1}{2}\times 56$ r -------(ii) From (i) and (ii), we get r=3cm	½ ½ ½ ½ ½ ½

	(Section – C)	
26.	 In ∆APO and ∆ACO AP=AC (Tangents from External Point) AO=AO (common) OP=OC (radii) ∆APO ≅ ∆ACO ∠POQ=180˚ (PQ is the diameter) ∠POA+∠COA+∠QOB+∠COB=180˚ 2∠COA+2∠COB=180˚ ∠ AOB = 90° **For Visually Impaired candidates:**  PA=PB (Tangents from external point to a circle) ∠PAB=∠PBA= x (angles opposite to equal sides) In ∆PAB, ∠PAB+∠PBA+∠APB=180° $x + x$ +∠APB=180° ∠APB=180°−2 x ------(i) Also, ∠PAB+∠OAB=90° (radius is perpendicular to the tangent at the point of contact) x +∠OAB=90° x =90°−∠OAB --------(ii) Substituting (ii) in (i), we get ∠APB=180°-2(90°− ∠OAB) ∠APB=2∠OAB	**1** **1** **1** **½** **1** **1** **½**
27.	HCF (36,60,84) =12 Required number of rooms= $\frac{36}{12}+\frac{60}{12}+\frac{84}{12}$ =3+5+7 =15	**1 ½** **1** **½**
28.	$2x^2-(1+2\sqrt{2})x+\sqrt{2}$ $= 2x^2-x-2\sqrt{2}x+\sqrt{2}$ $= (2x-1)(x-\sqrt{2})$ Hence the zeroes are $\frac{1}{2}$ and $\sqrt{2}$. Now $\frac{-b}{a} = \frac{2\sqrt{2}+1}{2} = \sqrt{2}+\frac{1}{2}$ and $\frac{c}{a} = \frac{\sqrt{2}}{2} = \frac{1}{2}\times\sqrt{2}$	**1** **1** **1**

29.	$sin\theta + cos\theta = \sqrt{3}$ gives $(sin\theta + cos\theta)^2 = 3.$ Hence $1 + 2sin\theta cos\theta = 3$ So $2sin\theta cos\theta = 2$ $\Rightarrow sin\theta\ cos\theta = 1$ $\therefore tan\ \theta + cot\theta = \frac{1}{sin\theta cos\theta}$ =1 **OR** $\frac{cosA-sinA+}{cosA+sinA-} = \frac{(cosA-sinA+\ )(cosA+sinA+1)}{(cosA+sinA-1)(cosA+sinA+\ )}$ $= \frac{cos^2A+2cosA+1-sin^2A}{2sinAcosA}$ $= \frac{2cosA(1+cosA)}{2sinAcosA} = \frac{1+cosA}{sinA} = cosecA + cotA$	**1** **1** **1** **1** **1** **1**
30.	P(Vidhi drives the car) = $\frac{3}{8}$ as favourable outcomes are HHT,THH,HHH P(Unnati drives the car) = $\frac{4}{8}$ as favourable outcomes are THT,THH,HTH,TTH As $\frac{4}{8} > \frac{3}{8}$ Unnati has greater probability to drive the car	**1** **1** **1**
31.	Let the income of Aryan and Babban be $3x$ and $4x$ respectively And let their expenditure be $5y$ and $7y$ respectively. Since each saves ₹ 15,000, we get $3x - 5y = 15000$ $4x - 7y = 15000$ Hence $x = 30000$ Their income thus become ₹90,000 and ₹1,20,000 respectively. **OR**  	**1** **1** **1** **2 for correct Graph**

	Hence, the solution is $x = 2, y = 2$ Area= 2 sq. units **For Visually Impaired candidates** Let the present age of father be x and son be y So, $(x + 5) = 3(y + 5) \Rightarrow x - 3y = 10$ $x - 5 = 7(y - 5) \Rightarrow x - 7y = -30$ So, $x = 40, y = 10$. Hence the present ages of father and son are 40 years and 10 years Respectively	½ ½ 1 1 1
	Section D	
32.	Let the original speed of train be x km/hr Distance =63km, time(t_1) =$\frac{63}{x}$ hrs Faster speed = (x +6) km/hr time (t_2)=$\frac{72}{x+6}$ hrs Now $t_1 + t_2 = 3$ hrs So $\frac{63}{x} + \frac{72}{x+6} = 3$ $63(x + 6) + 72x = 3(x + 6)x$ $135x + 378 = 3x^2 + 18x$ $3x^2 - 117x - 378 = 0$ $x^2 - 39x - 126 = 0$ $x^2 - 42x + 3x - 126 = 0$ gives $(x + 3)(x - 42) = 0$ As x can't be negative, so $x = 42$ km/hr The original speed of train=42 km/hr	 1 1 1 1 1
33.	Correct given, figure and construction Correct Proof since LM is parallel to QR Let PM= x $\frac{PL}{PQ} = \frac{PM}{PR}$ $\frac{5.7}{15.2} = \frac{x}{x+5.5}$ x =PM=3.3cm	2 2 ½ ½

34. (A)



Slant height of the cone $L = \sqrt{R^2 + H^2} = \sqrt{12^2 + 6^2}$
$= 3\sqrt{20}\ cm$ ½

Curved Surface area of cone$= \pi RL = \pi \times 12 \times 3\sqrt{20}$
$= (36\sqrt{20})\ \pi\ cm^2$ 1

Area of base circle of cone (= area of outer circle – area of inner circle + top circular area of cylinder)
$= \pi R^2 = \pi \times (12)^2$
$= 144\pi\ cm^2$ 1

Curved Surface area of cylinder$= 2\pi rh = 2\pi \times 4 \times 3$
$= 24\ \pi\ cm^2$ 1

Surface area of the remaining solid= Curved surface of cone
+ area of base circle of cone
+ curved surface area of cylinder 1
$= \left(36\sqrt{20}\right)\pi + 144\pi + 24\pi$
$= \left(168 + 36\sqrt{20}\right)\pi\ cm^2$ ½

OR

(B) Volume of cone=$\frac{1}{3}\pi r^2 h = \frac{1}{3}\pi \times 3\times 3\times 12 = 36\pi cm^3$

Volume of ice-cream in the cone=$\frac{5}{6} \times 36\pi cm^3 = 30\pi\ cm^3$ 2

Volume of ice-cream in the hemispherical part= $\frac{2}{3}\pi r^3 = \frac{2}{3}\pi \times 3\times 3\times 3 = 18\pi\ cm^3$ 1+½

Total volume of the ice-cream = $(30\pi + 18\pi) = 48\ \pi = 150.86 cm^3$ (approx.) 1+½

35. (A) Mode of the frequency distribution = 55

Modal class is 45-60. Lower limit is 45 Class Interval (h) =15 ½

Now, Mode = $l + \left(\frac{f_1 - f_0}{2f_0 - f_1 - f_2}\right) \times h$

$55 = 45 + \frac{15-x}{30-x-} \times 5$ 1

So, $x = 5$ 1

CI	f_i	x_i	$f_i x_i$
0-15	10	7.5	75
15-30	7	22.5	157.5
30-45	5	37.5	187.5
45-60	15	52.5	787.5
60-75	10	67.5	675
75-90	12	82.5	990
	59		2872.5

1 ½

Mean= $\bar{x} = \frac{2872.5}{59} = 48.68$ 1

OR

(B)

Height (in cm)	Number of girls	Class Interval	frequency
less than 140	04	135-140	4
less than 145	11	140-145	7
less than 150	29	145-150	18
less than 155	40	150-155	11
less than 160	46	155-160	6
less than 165	51	160-165	5

1

Median = l +($\frac{\frac{N}{2}-Cf}{f}$) x h **1**

=145 + ($\frac{\frac{51}{2}-11}{18}$)×5 **1**

=149.03

Median height = 149.03cm **1**

3×Median= Mode +2× Mean **1**

3×149.03=148.05+2× Mean

Mean=149.52

Section E

36.

(i) Common difference of first progression= 3

Common difference of first progression= -3

Sum of common difference=0. **1**

(ii) t_{34} = 187 +(34-1) (-3)

So, t_{34} =88 **1**

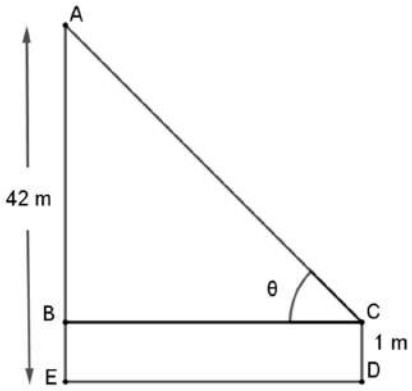
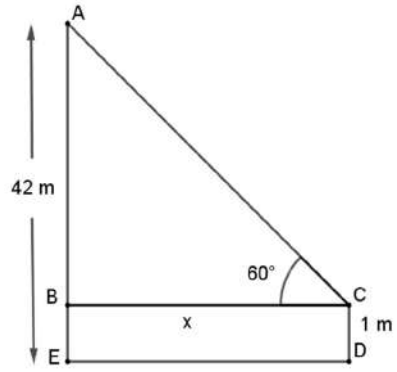
(iii) (A) Sum $= \frac{10}{2}[2(-5) + (10-1)(3)]$ **1**

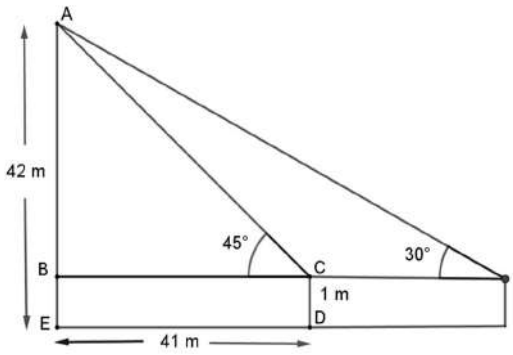
$= 85$ **1**

OR

(B) -5 +(n-1)3 = 187 +(n-1) (-3) **1**

n = 33 **1**

37.	(i) PR= $\sqrt{(8-2)^2+(3-5)^2}$ = $2\sqrt{10}$	**1**
	(ii) Co-ordinates of Q (4,4). The mid-point of PR is (5,4) ∴Q is not the mid-point of PR	½ ½
	(iii) (A) Let the point be (x,0) So, $\sqrt{(2-x)^2+25}$ = $\sqrt{(4-x)^2+16}$ Hence $x = \frac{3}{4}$.Therefore the point is ($\frac{3}{4}$,0). **OR** (B) The coordinates of S will be $\left(\frac{2\times4+3\times2}{2+3}, \frac{2\times4+3\times5}{2+3}\right)$ $= \left(\frac{14}{5}, \frac{23}{5}\right)$	**1** **1** **1** **1**
38.	 (i) Distance from India gate = 41m, Height of monument = 42m, Shreya's height =1m So, $\tan\theta$=$\frac{41}{41}$ =1 Angle of elevation $= \theta = 45^o$.	½ ½
	 (ii) Angle of elevation =60° Perpendicular = 41m Let the distance from the India Gate be x m Hence tan 60°= $\frac{41}{x}$ $\Rightarrow x = \frac{41}{\sqrt{3}}$ ∴ Shreya is standing at a distance of $\frac{41\sqrt{3}}{3}$ m	½ ½



(iii) (A)

Distance from the India Gate $= 41$ m

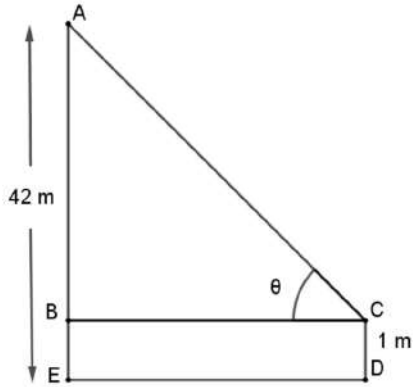
Let the distance moved back be x m

Then, $\tan 30^o = \frac{41}{41+x}$ **1**

$x = (41\sqrt{3} - 41)$ m $= 41(\sqrt{3}\text{-}1)$ m **1**

∴ The distance moved back = $41(\sqrt{3}\text{-}1)$ m

OR



(B) Let the angle of elevation of be θ

Now, $\tan\theta = \frac{41}{\frac{41}{\sqrt{3}}} = \sqrt{3}$ **1**

This gives $\theta = 60^o$ **1**

SCIENCE – Code no. 086
SAMPLE QUESTION PAPER*
CLASS – X (2025-26)

Max. Marks: 80 **Time Allowed: 3 hours**

General 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.

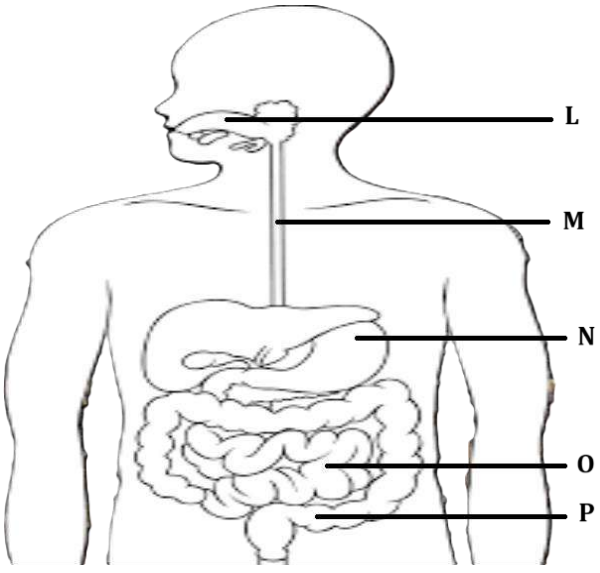
(ii) All questions are compulsory. However, an internal choice is provided in some questions. A student is expected to attempt only one of these questions.

	Section – A	**Marks**
1	Select the group in which all organisms have the same mode of nutrition. A. Cuscuta, yeast, legumes, leeches and tapeworm B. Cactus, ticks, lice, leeches and cow C. Cuscuta, ticks, lice, leeches and tapeworm D. Cactus, grass, lice, lion and tapeworm	1
2	Which of the following options indicates the products formed after breakdown of the glucose in our muscle cells when there is lack of oxygen? A. Ethanol + carbon dioxide + Energy B. Lactic acid + Energy C. Lactic acid + carbon monoxide + Energy D. Carbon dioxide + Water + Energy	1
3	Which of the following is a correct combination of function and part of the brain? A. Posture and balance: Cerebrum B. Salivation: Medulla in midbrain C. Hunger: Pons in hindbrain D. Blood pressure: Medulla in hindbrain	1
4	The blood glucose level in a patient was very high. It may be due to inadequate secretion of: A. growth hormone from pituitary gland B. oestrogen from ovary C. insulin from pituitary gland D. insulin from pancreas	1
5	In a cross between black furred rabbit (B) and white furred rabbit (b), all offspring were found to have black fur. What can be inferred about the genetic makeup of the parent rabbits? A. BB X bb B. Bb X Bb C. Bb X bb D. bb X bb	1

**Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26.*

6	Which are the correct statements related to ozone? (i) Ozone layer helps in increasing the UV radiations reaching earth. (ii) Ozone is a deadly poison. (iii) Ozone layer shields the earth from UV radiations. (iv) Ozone layer prevents UV rays which cause skin cancer. (v) Ozone is formed with the help of Chloroflurocarbons. A. (i), (ii), (iii) B. (ii), (iii), (iv) C. (iii), (iv), (v) D. (i), (iv), (v)	1
7	Which of the following human activities has resulted in an increase of non-biodegradable substances? A. Organic farming B. Increase in tree plantation C. Use of plastic as packaging material D. Composting of kitchen waste	1
The following two questions consist of two statements – **Assertion** (A) and **Reason** (R). Answer these questions by 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 but R is true.		
8	**Assertion (A):** Tallness of a pea plant is controlled by an enzyme**.** **Reason (R):** The gene for that enzyme makes proteins which help the plant to be tall.	1
9	**Assertion (A):** Vulture will always have the least amount of pesticides in a food chain. **Reason (R)**: Vulture occupies the last trophic level and it gets only 10% of energy of the previous trophic level.	1
10	Unlike animals, plants do not have any excretory products as they do not eat food. Comment upon the statement with justification.	2
11	*Students to attempt either option A or B.* A. How many chambers are there in the heart of the following organisms? How is mixing of oxygenated and deoxygenated blood prevented in their body? (i) Fishes (ii) Humans **OR** B. Explain the mechanism by which the water is transported in plants?	2
12	About 100 acres of forest land was declared as Natural reserve park. The following organisms were predominant in the Natural reserve park:	2

**Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26.*

	rabbit, frog, grass, fish, fox, water insects, zebra, peacock, snake, trees, bird, owl, insects, tiger, vulture, duck. Create a food web comprising two separate food chains with different producers by using the above data.	
13	Draw and explain how the nerve cells help in transmission of impulses?	3
14	In a genetic experiment, plants with pure round green seeds (RRyy) were crossed with plants with wrinkled yellow seeds (rrYY). (i) Show the gametes formed when F1 was self-pollinated. (ii) A total of 144 seeds were produced which developed into saplings. Show the ratio in which these traits are independently inherited in these144 sapling.	3
15	Neha consumed boiled sweet potatoes and boiled eggs for breakfast. Help her to understand some steps in the process of digestion of the food taken by her by answering the questions given below. *Attempt either subpart A or B.* A. Which of these food items is rich in proteins? In which part of the alimentary canal is the digestion of this component initiated? Name the enzymes, conditions required and the glands associated with the digestion here. **OR** B. Which of these food items contains fats? How is it digested? C. Which of these food items is rich in starch? How is its digestion initiated? D. The figure given below represents parts of the human alimentary canal. Which of these parts will have the maximum amount of digested food as soon as the process of digestion is completed?  **Figure: Human Alimentary canal**	4

**Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26.*

	For visually impaired students D. How will the digested food be taken up by the alimentary canal?	
16	*Attempt either option A or B.* A. Puneet wanted to grow banana plants. (i) Based on your knowledge on plant reproduction should he opt for seeds or any alternate method of reproduction. Justify your answer. (ii) Offsprings of a banana plant usually show very little variation. What causes variation and are variations good or bad? Justify. **OR** B. Annie was conducting research on the number of fruits produced by watermelon under different conditions. She grew 25 watermelon plants each in both glass house A and B. She introduced pollinators in glass house A only. (i) What difference will she observe in the number of fruits produced in the two glass houses? Explain with reason. (ii) List 3 changes that will occur in a flower once it gets fertilized.	5
	Section – B	
17	Which of the following equations represent redox reactions and what are the values for 'p' and 'q' in these equations? Equation 1: $Fe_2O_3(s) + 2Al(s) \longrightarrow Al_2O_3(s) + p\ Fe(l) + heat$ Equation 2: $2C_4H_{10}(g) + 13O_2(g) \xrightarrow{\triangle} 8CO_2(g) + q\ H_2O(g)$ A. Only equation 1 is a redox reaction, p =1 and q=3 B. Both equations 1 and 2 are redox reactions, p= 2 and q=4 C. Only equation 2 is a redox reaction, p= 2 and q= 10 D. Both equations 1 and 2 are redox reactions, p= 2 and q=10	1
18	Four statements about the reactions of oxides with dilute hydrochloric acid and aqueous sodium hydroxide are listed. I. Aluminium oxide reacts with both dilute hydrochloric acid and aqueous sodium hydroxide. II. Calcium oxide reacts with dilute hydrochloric acid and aqueous sodium hydroxide. III. Zinc oxide reacts with both dilute hydrochloric acid and aqueous sodium hydroxide. IV. Sulphur dioxide does not react with either dilute hydrochloric acid or aqueous sodium hydroxide. Which statements are correct? A. I and II B. I and III C. II and IV D. III and IV	1

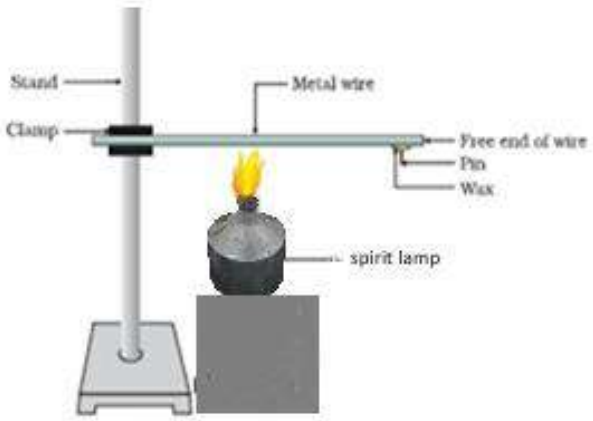
**Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26.*

19	An iron nail is added to each of the two test tubes 'P' and 'Q' containing aqueous copper (II) sulphate, and aqueous silver nitrate respectively. Which of the following observation is correct? A. In test tube 'P' iron nail is coated with a blue coating and in test tube 'Q' there is no reaction. B. Iron nail is coated with a brown coating in test tube 'P' and silver coating in test tube 'Q'. C. There is no reaction in either of the test tubes 'P' or 'Q'. D. There is no reaction in test tube 'P' but a silver coating on iron nail is seen in test tube 'Q'.	1
20	Methyl orange is added to dilute hydrochloric acid and to aqueous sodium hydroxide. What is the colour of the methyl orange in each solution? <table><tr><th>Sample</th><th>colour in dilute hydrochloric acid</th><th>colour in aqueous sodium hydroxide</th></tr><tr><td>A</td><td>Orange</td><td>Red</td></tr><tr><td>B</td><td>Red</td><td>Yellow</td></tr><tr><td>C</td><td>Red</td><td>Orange</td></tr><tr><td>D</td><td>Yellow</td><td>Red</td></tr></table>	1
21	Which of the following substances when dissolved in equal volume of water, will have the highest pH value? A. Sulphuric acid B. Acetic acid C. Magnesium hydroxide D. Sodium hydroxide	1
22	When excess of carbon dioxide is passed through lime water, the milkiness disappears because A. water soluble calcium carbonate converts to water soluble calcium bicarbonate. B. insoluble calcium carbonate converts to water soluble calcium bicarbonate. C. water soluble calcium carbonate converts to insoluble calcium bicarbonate. D. insoluble calcium carbonate converts to insoluble calcium bicarbonate.	1
23	In the reaction of aqueous solution of barium chloride with aqueous solution of sodium sulphate, the aqueous solution formed will be: A. $BaCl_2$ B. $BaSO_4$ C. Na_2SO_4 D. NaCl	1

The following question consists of two statements – **Assertion** (A) and **Reason** (R). Answer these questions by 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.

**Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26.*

	C. A is true but R is false. D. A is false but R is true.	
24	**Assertion (A):** C_4H_8, C_4H_6 and C_4H_{10} are members of the same homologous series **Reason (R):** C_4H_8, C_4H_6, C_3H_4, C_3H_6, C_2H_4, C_2H_2 are unsaturated hydrocarbons.	1
25	The following activity is set-up in the science lab by the teacher. He clamped an aluminium wire on a stand and fixed a pin to the free end of the wire using wax. Then he heated the wire with a burner from the end where the wire is clamped. Students observed the pin fall off.  A. If the teacher replaces aluminium wire by silver wire, will the students' observation change? Justify your answer. B. Will the aluminium wire melt? Give reason for your answer.	2
26	*Attempt either option A or B.* A. An element 'X' is stored in kerosene, and cannot be extracted from its ore using a reducing agent. 'X' forms an ionic compound on reaction with chlorine. (i) Can we store 'X' in water? Give reason to support your answer. (ii) Identify element 'X'. Name the process used and write the equation for extraction of 'X' from its ore. **OR** B. The domes of many building in Europe are made of copper. These domes now appear greenish in colour. (i) Why do the domes appear greenish though copper is orange-red in colour? (ii) In your opinion, should the copper domes be replaced by iron domes to overcome the problem of change of colour of copper domes? (iii) Domes used to be made from thin sheets of metals. Why did the ancient architects use copper to make domes?	3
27	Amrita electrolysed distilled water using the set-up shown in figure 1. She was expecting two gases to be evolved at the anode and cathode respectively	3

**Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26.*

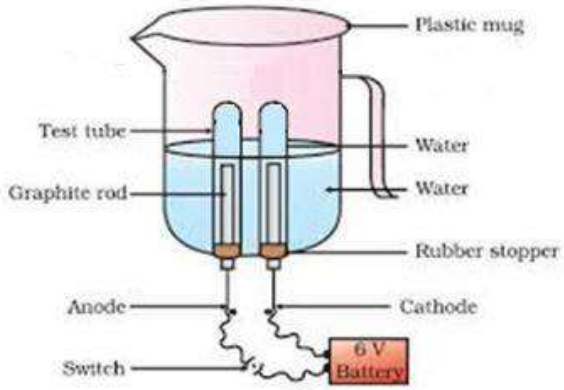


Fig.1

Suddenly, she realised that the bulb in the circuit did not glow when she used distilled water (figure 2)

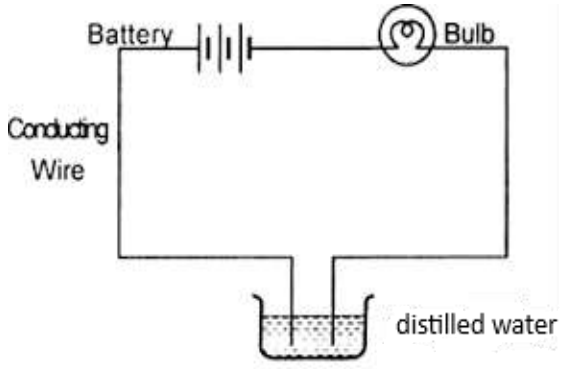


Fig. 2

After this realization, she added a substance to the distilled water for electrolysis to take place.

Answer the following questions based on the information given above:

A. Which gas was she expecting to be formed at the anode and which one at the cathode respectively?
B. Why did the bulb not glow when Amrita passed electricity through distilled water?
C. Which substance was added by Amrita to distilled water to get the expected result?

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For visually impaired students

Identify the type of reaction:

A. $ZnO + C \longrightarrow Zn + CO$
B. $ZnCO_3 \xrightarrow{heat} ZnO + CO_2$
C. $2Mg + O_2 \longrightarrow 2\ MgO + heat$

28	Sara took 2 mL of dilute NaOH solution in a test tube and added two drops of phenolphthalein solution to it. The solution turned pink in colour. She added dilute H_2SO_4 to the above solution drop by drop until the solution in the test tube became colourless. 40 drops of dilute H_2SO_4 were used for the change in	4

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colour from pink to colourless. When Sara added a drop of NaOH to the solution, the colour changed to back to pink again.
Sara now tried the activity with different volumes of NaOH and recorded her observation in the table given below:

S. No.	Volume of dil. NaOH taken (mL)	Drops of dil. H_2SO_4 used
1	2	20
2	3	30
3	4	40

Answer the following questions based on the above information:

A. If Sara used concentrated H_2SO_4 in place of dilute H_2SO_4, how many drops will be required for the change in colour to be observed?
(a) 40
(b) < 40
(c) >40

Justify your answer.

B. Sara measured 20 drops of dil. H_2SO_4 and found its volume to be 1 mL. If Sara observed a change in colour of NaoH solution by using 3 mL of H_2SO_4, how many mL of NaOH did she add to the test tube initially?

OR

Sara takes 10 drops of dilute H_2SO_4 in the test tube and adds two drops of phenolphthalein solution to it. Then she adds NaOH dropwise. Sara observes a change in colour after adding 20 drops of NaOH. What change in colour would she observe and why?

C. Write a balanced chemical equation for the reaction taking place in the above experiment. Which of the following is true and why? The reaction is a
(a) neutralisation and double displacement reaction
(b) neutralisation and precipitation reaction
(c) precipitation and double displacement reaction
(d) neutralisation, double displacement as well as precipitation reaction.

29 *Attempt either option A or B.* 5

A. A hydrocarbon with the formula C_xH_y undergoes complete combustion as shown in the following equation:

$$2C_xH_y + 9O_2 \rightarrow 6CO_2 + 6H_2O.$$

(a) What are the values of 'x' and 'y'?
(b) Give the chemical (IUPAC) name of the hydrocarbon.
(c) Draw its electron dot structure.
(d) Name the alcohol which on heating with conc. H_2SO_4 will produce the above hydrocarbon C_xH_y.

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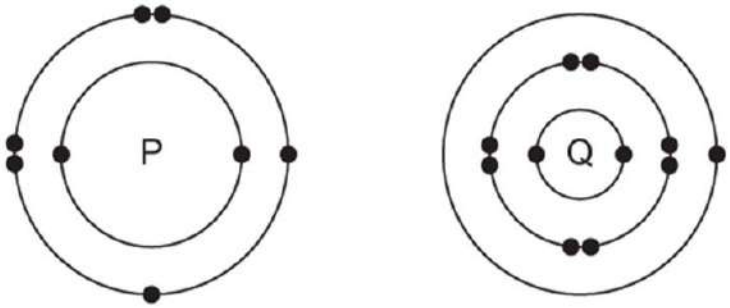
(e) Write a balanced chemical equation for the reaction of C_xH_y with hydrogen gas in presence of Nickel.

OR

B. The electronic structures of atoms P and Q are shown below



Based on the information given above, answer the following questions:

(a) If P and Q combine to form a compound, what type of bond is formed between them?
(b) Give the chemical formula of the compound formed.
(c) The compound so formed is dissolved in water. Is the resultant solution acidic or basic in nature? Justify your answer.
(d) Write the chemical equation for the reaction between 'Q' and ethanol.
(e) What will be the formula of the compound formed when 'P' undergoes bonding with carbon?

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For visually impaired students

A. A hydrocarbon with the formula C_xH_y undergoes complete combustion as shown in the following equation:

$2C_xH_y + 9O_2 \rightarrow 6CO_2 + 6H_2O$.

(a) What are the values of 'x' and 'y'?
(b) Give the chemical (IUPAC) name of the hydrocarbon.
(c) Is C_xH_y a saturated or an unsaturated hydrocarbon?
(d) Name the alcohol which on heating with conc. H_2SO_4 will produce the above hydrocarbon C_xH_y.
(e) Write a balanced chemical equation for the reaction of C_xH_y with hydrogen gas in presence of Nickel.

OR

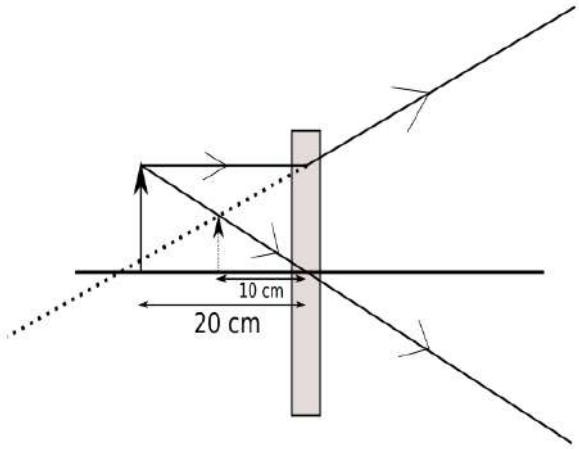
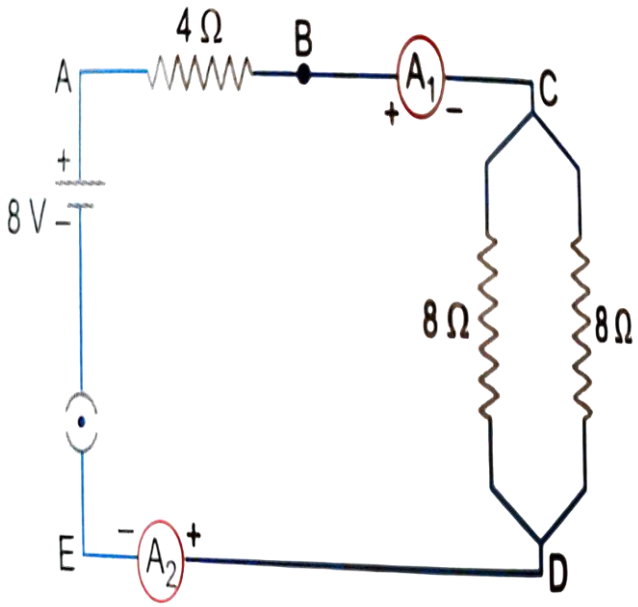
B. Oxygen can combine with both metals and non-metals. It combines with Calcium to form CaO and with carbon to form CO_2.

(a) What type of bond is formed between carbon and oxygen?
(b) Identify the type of bond formed between Calcium and oxygen.
(c) Which of the above compounds will be a good conductor of electricity in molten state and why?
(d) Comment on the physical state (solid, liquid or gas) of CaO and CO_2.
(e) What is the valency of carbon in CO_2?

**Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26.*

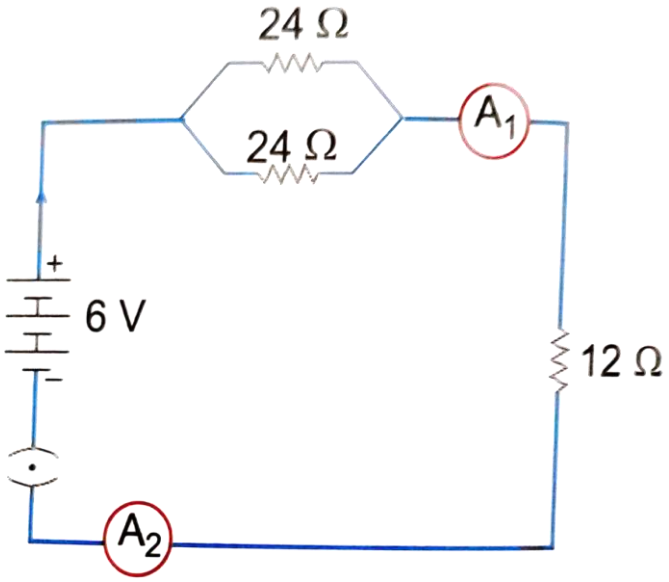
Section – C		
30	Arnav was making notes and he wrote down the following statements from his understanding of reflection from curved surfaces. I. Concave mirrors can produce both real and virtual images depending on the position of the object. II. Convex mirrors always produce real, inverted images regardless of the object's position. III. In both concave and convex mirrors, the image location can be determined using the mirror formula $\frac{1}{f} = \frac{1}{v} + \frac{1}{u}$ where f is the focal length, v is the image distance, and u is the object distance. Choose from the following the correct option that lists the correct statements about reflection from curved surfaces. A. I and II B. I, II and III C. II and III D. I and III	1
31	Choose the correct option from the below which explains the reason for us to perceive the day sky as blue. A. As sunlight passes through the atmosphere, shorter wavelengths, such as blue are scattered more than other colors. B. The sky appears blue because all colors are scattered equally, but blue light is stronger and more visible to the human eye. C. The blue color of the sky is due to longer wavelengths like red and orange scattering more than shorter wavelengths, making blue stand out more. D. The atmosphere contains blue-colored particles that give the sky its blue appearance.	1
The following question consists of two statements – **Assertion** (A) and **Reason** (R). Answer these questions by 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 but R is true.		
32	**Assertion (A):** A point object is placed at a distance of 26 cm from a convex mirror of focal length 26 cm. The image will not form at infinity. **Reason (R):** For above given system the equation $\frac{1}{f} = \frac{1}{v} + \frac{1}{u}$ gives v = ∞.	1

**Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26.*

33	 The above image shows the formation of an image with an optical instrument. A. Identify the optical instrument (shown schematically as a rectangle) in the image. B. What type of image is formed in this case? C. Based on the measurements given in the image, calculate the focal length of the instrument. - - - - - - - - - - - - - - *For visually impaired students* A. Under what conditions can a convex lens form a virtual image? B. Why does a piece of paper catch fire if we allow sunlight to pass through a convex lens onto the paper?	2
34	*Attempt either option A or B.* A.  Find out the following in the electric circuit given in the figure- (i) Effective resistance of two 8 ohm resistors in the combination. (ii) Current flowing through the 4-ohm resistor **OR**	2

**Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26.*

B.



Study the circuit and find out-

(i) Current in 12 ohm resistor

(ii) Difference in the readings of ammeter A_1 and A_2 if any

- - - - - - - - - - - - - -

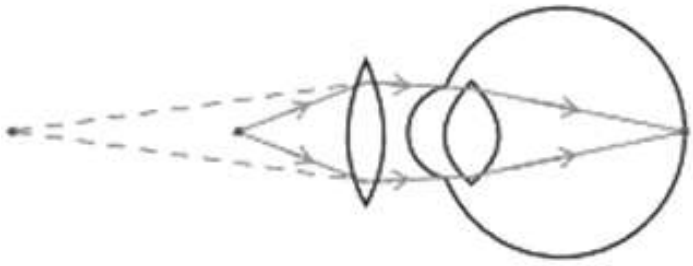
For visually impaired students

A. You are given four resistors each having resistance of R ohm. Find the maximum and minimum resistance that can be made with these four resistors.

OR

B. A copper wire has a length L=2 m, a cross-sectional area A=0.5 mm^2, and resistivity $\rho=1.7\times10^{-8}$ Ω-m. Calculate the resistance of another wire made of the same material whose length is twice the length of the wire but has the same cross-sectional area.

35



3

The above image shows a corrective measure for a particular defect of vision.

(i) Identify the defect of vision and state what kind of lens is used to correct this deficiency.

(ii) Draw and label a ray diagram that shows the defect of vision in the above case before correction.

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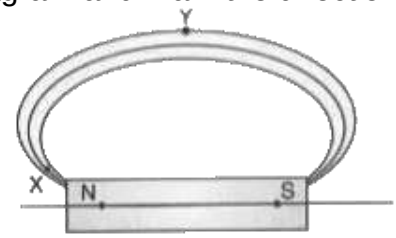
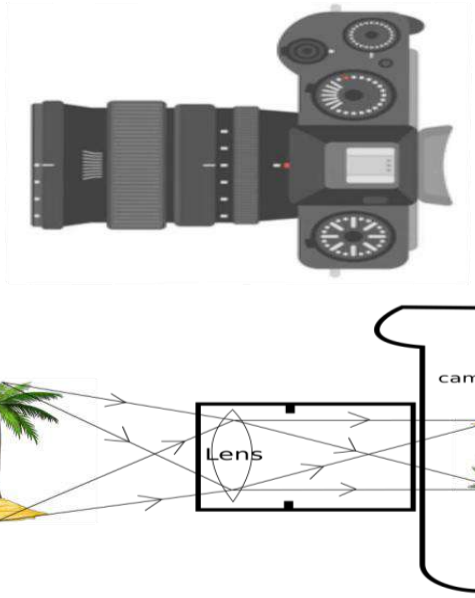
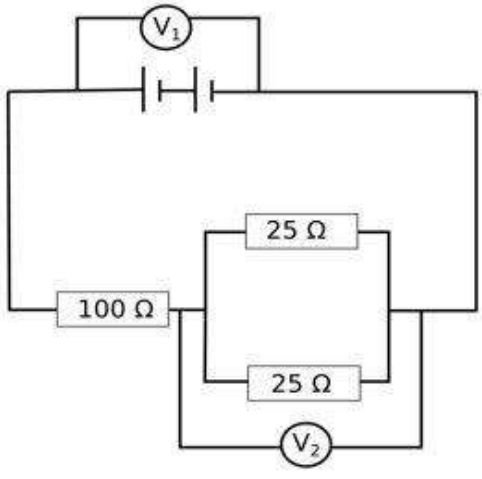
For visually impaired students

(i) What is dispersion of light?

*Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26.

	(ii) Explain the condition under which dispersion happens? (iii) Give one reason that causes presbyopia.	
36	A student needs to make a 0.12 Ω resistor. She has some copper wire of 0.80 mm diameter. Resistivity of copper is 1.8×10^{-8} Ωm (i) Determine the cross-sectional area of the wire. (ii) Calculate the length of wire required for the 0.12 Ω resistor.	3
37	Magnetic field lines are shown in the given diagram. A student makes a statement that the magnetic field at X is stronger than at Y. (i) Explain with reason if the student's claim is correct. (ii) Also redraw the diagram and mark the direction of magnetic field lines. 	3
38	 The above image is that of a Digital Single Lense Reflector (DSLR) Camera which are used to take high resolution photographs by professional photographers. The second image of the above two is a schematic diagram of how an image is formed on the sensor of the camera. Based on your understanding of the lenses, answer the following questions. A. What type of lens is used in the DSLR camera shown in the image? B. What type of image is formed on the sensor? *Attempt either subpart C or D.* C. A photographer is using a DSLR camera with a lens of focal length f=50 mm to take a close-up photograph of a small object. The lens projects an image onto the camera sensor that is located 60 mm behind the lens. Calculate the object distance (i.e., the distance between the object and the lens).	4

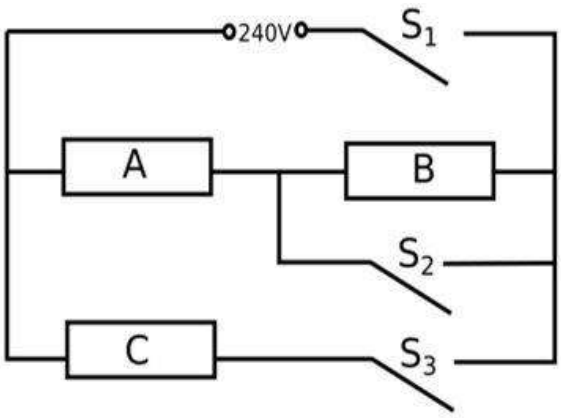
**Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26.*

	OR D. A photographer is using a DSLR camera to take a picture of a flower. The flower is positioned 150 mm away from the camera lens. The actual height of the flower is 80 mm, and the image height formed on the camera's sensor is measured to be 20 mm. Calculate the focal length of the camera lens. *For visually impaired students* Zarina worked as an apprentice in a factory where flashlights and solar cookers are made. She learnt to make the circuits, the design of the light-box and light concentrators of the solar cookers as well. She learnt the uses of lenses in making all those tools. Based on your understanding of lenses, answer the following questions. A. What kind of lenses are used in the flashlight and light concentrator of the solar-cooker? B. Give reasons for your choices in your answer for part A. *Attempt either subpart C or D.* C. An object is placed 40 cm away from a lens which is normally used in a solar-cooker. The image formed is twice the size of the object. Calculate the focal length of the lens. **OR** D. An object is placed 20 cm in front of a lens which is used in a flashlight, and the image is formed 10 cm away from the lens on the same side as the object. Calculate the focal length of the lens.	
39	*Attempt either option A or B.* A.  The arrangement of resistors shown in the above figure is connected to a battery.; The power dissipation in the 100 Ω resistor is 81 W. Calculate (i) the current in the circuit (ii) the reading in the voltmeter V_2 (iii) the reading in the voltmeter V_1	5

**Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26.*

OR

B.



An electric heater consists of three similar heating elements A, B and C, connected as shown in the figure above. Each heating element is rated as 1.2 kW, 240 V and has constant resistance. S_1, S_2 and S_3 are respective switches.

The circuit is connected to a 240 V supply.

(i) Calculate the resistance of one heating element.

(ii) Calculate the current in each resistor when only S_1 and S_3 are closed.

(iii) Calculate the power dissipated across A when S_1, S_2 and S_3 are closed.

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For visually impaired students

A.

(i) Explain why in household circuits only the fuse is connected in series with all the rest of the appliances but all appliances are connected in parallel to each other.

(ii) In a household circuit, an electric heater of power 1500 W and a fan of power 500 W are connected in parallel to a 220 V supply. A fuse rated for 10 A is connected to the circuit to protect it from excessive current.

(a) Calculate the total current drawn by the heater and the fan.

(b) Determine whether the 10 A fuse is appropriate for this circuit or if it will blow.

OR

B. Two resistors, R_1=6 Ω and R_2=12 Ω, are connected in parallel to a 24V battery. The circuit operates for 5 minutes.

(i) Calculate the total heat generated in both resistors.

(ii) If each resistor has a power rating of 100 W, determine whether it is safe to use these resistors in the circuit.

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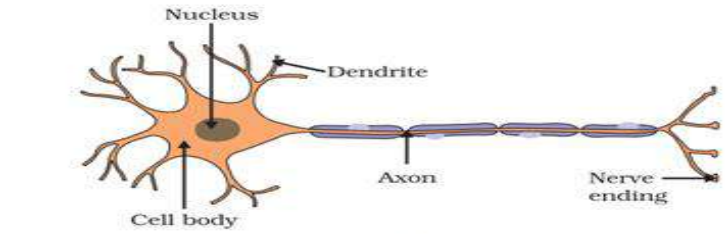
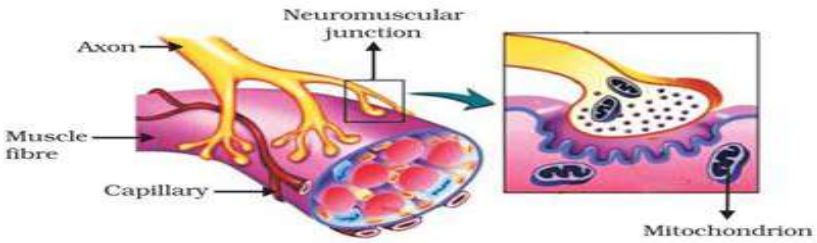
**Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26.*

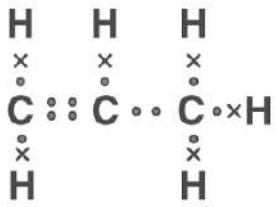
SCIENCE – Code no. 086
MARKING SCHEME
CLASS – X (2025-26)

Section – A		
1	C. Cuscuta, ticks, lice, leeches and tapeworm; as all of these are parasites.	1
2	B. Lactic acid + Energy	1
3	D. Blood pressure: Medulla in hindbrain	1
4	D. insulin from pancreas	1
5	A. BB x bb	1
6	B. (ii), (iii), (iv)	1
7	C. Use of plastic as packaging material.	1
8	A. Both A and R are true, and R is the correct explanation of A.	1
9	D. A is false but R is true	1
10	It is completely wrong to say that plants do not produce any excretory products. However, plants use completely different strategies for excretion than those of the animals. They get rid of these wastes in different manner (any two): i. Oxygen, a photosynthetic waste, is removed through stomata. ii. Excess water is removed by transpiration through stomata. iii. Other metabolic wastes are either stored in dead cells, resins and gums or are removed through falling of old leaves. iv. Many waste products are stored in cellular vacuoles	2
11	*Students to attempt either option A or B.* A. (i) There are two chambers in the heart of fish. The blood is pumped to the gills, is oxygenated there and passes directly to the rest of the body. (ii) There are four chambers in the heart of a human being. Separation of the right side and the left side of the heart by septum prevents mixing of oxygenated and de-oxygenated bloods **OR** B. Xylem moves water and minerals obtained from the soil through roots to all other parts of the plant in a unidirectional manner// Transpiration takes place from leaf which causes a transpirational pull in the tracheids and vessels of xylem facilitating upward movement of water// roots	2

	actively uptake ions from the soil, leading to difference in concentration gradient, thereby water moves into the roots to eliminate this difference/ creating a steady movement of water into root xylem.	
12	Tree food chain- tree, zebra, tiger /Any other food chain Grassland food chain- grass, zebra, tiger / Any other food chain Food web- Join the two food chains at a common point (zebra)	2
13	• All information from our environment is detected by the specialised tips of some nerve cells. The information acquired at the end of the dendritic tip of a nerve cell (Fig. a), sets off a chemical reaction that creates an electrical impulse. • This impulse travels from the dendrite to the cell body, and then along the axon to its end. At the end of the axon, the electrical impulse sets off the release of some chemicals. • These chemicals cross the gap, or synapse, and start a similar electrical impulse in a dendrite of the next neuron. This is how nervous impulses travel in the body. (Fig b).  (a)  (b) **Figure** (a) Structure of neuron, (b) Neuromuscular junction	3
14	A. RY, Ry, rY, ry B. The traits which are independently inherited are as follows Tall round: 81 Tall wrinkled: 27 Short round: 27 Short wrinkled: 9 (Ratio :- 9 : 3 : 3 : 1)	3
15	*Students to attempt either subpart A or B.* A. Eggs are rich in proteins. The digestion of proteins is initiated in the stomach. Gastric glands present in the wall of the stomach release	4

	hydrochloric acid, a protein digesting enzyme called pepsin and mucus. The hydrochloric acid creates an acidic medium which facilitates the action of enzyme pepsin. **OR** B. Eggs contain fats. Bile juice from the liver breaks down large fat globules into smaller ones for increasing the efficiency of the enzymes and making the medium alkaline. Emulsified fats are digested by lipase secreted by pancreas. C. Sweet potatoes are rich in starch. The saliva secreted by salivary glands present in buccal cavity contain an enzyme called salivary amylase that breaks down starch which is a complex molecule to give sugar. D. Small Intestine will have a maximum amount of digested food as the process of digestion is completed in the small intestine. *For Visually impaired students* D. The digested food is taken up by the inner lining of the intestine with the help of finger-like projections or villi which increase the surface area for the absorption.	
16	*Student to attempt either option A or B.* (i) Puneet should not choose seeds as banana plants have lost the capacity to produce seeds. He should go for vegetative propagation of banana (by stem cutting). (ii) Errors and variations in DNA copying cause variation. Variation is good as it can help a population tide over unfavourable conditions by survival of some variants. It is bad as parents' desirable characters are lost/ sometimes variants are not able to survive in the new conditions/ the variant is not able to use the cellular apparatus efficiently. ***OR*** (i) Watermelon has unisexual flowers, the male and female flowers are separate. The presence of pollinators will facilitate cross pollination between the flowers increasing the chance of fertilization and number of fruits being produced. Without pollinators the probability of pollen falling on stigma reduces in a unisexual flower, especially if they are far apart thus the number of fruits produced will be less. (ii) The three changes observed are: • Ovule develops a tough coat and becomes seed. • Ovary grows and ripens to form fruit. • Petals, sepals, stamen, style and stigma may shrivel and fall off.	5
Section – B		
17	D. Both equations 1 and 2 are redox reactions, p= 2 and q=10	1
18	B. (I) and (III)	1

<table>
<tr><td>19</td><td>B. Iron nail is coated with a brown coating in test tube ‘P’ and silver coating in test tube ‘Q’.</td><td>1</td></tr>
<tr><td>20</td><td><table><tr><td>B.</td><td>Red</td><td>Yellow</td></tr></table></td><td>1</td></tr>
<tr><td>21</td><td>D. Sodium hydroxide</td><td>1</td></tr>
<tr><td>22</td><td>B. insoluble calcium carbonate converts to water soluble calcium bicarbonate.</td><td>1</td></tr>
<tr><td>23</td><td>D. NaCl</td><td>1</td></tr>
<tr><td>24</td><td>D. A is false but R is true</td><td>1</td></tr>
<tr><td>25</td><td>A. The pin will drop but will take less time to drop because silver is a better conductor of heat than aluminium.
B. No, aluminium wire will not melt because metals have high melting points.</td><td>2</td></tr>
<tr><td>26</td><td><u>Attempt either option A or B.</u>
A.
(i) No, ‘X’ is highly reactive and will catch fire.
(ii) Sodium.
It is extracted from molten sodium chloride by electrolytic reduction
Cathode: $Na^+ + e^- \rightarrow Na$
Anode: $2Cl^- \rightarrow Cl_2 + 2e^-$
(Potassium is also a correct option)
OR
B.
(i) Copper gets oxidised/corroded to basic copper carbonate which is greenish in colour.
(ii) No, iron will rust and the reddish layer of rust will come off exposing iron to air, the dome will not be stable. Copper on the other hand on corrosion forms a protective layer which does not allow further corrosion.
(iii) Copper is a highly malleable metal, its thin sheets can be used to give different shapes of roofs, like the shape of a dome.</td><td>3</td></tr>
<tr><td>27</td><td>A. She was expecting Oxygen gas to be formed at the anode and hydrogen at the cathode.
B. Distilled water is a poor conductor of electricity.
C. Adding few drops of H_2SO_4 or some NaCl (or any other strong electrolyte).
<u>For visually impaired students</u>
A. Redox reaction</td><td>3</td></tr>
</table>

	B. Decomposition reaction and endothermic reaction C. Combination reaction and exothermic reaction	
28	A. (b) < 40, because concentrated H_2SO_4 gives more H+ ions than dilute acid. B. 3 mL of H_2SO_4 will be 60 drops, which will neutralise 6 mL of NaOH **OR** Colour will change from colourless to pink. Phenolphthalein in colourless in acids and turns pink in basic solution. C. $2NaOH + H_2SO_4 \rightarrow Na_2SO_4 + 2H_2O$ (a) neutralisation and double displacement reaction. Base NaOH is getting neutralised and forming salt + water. It is double displacement as Na^+ ions are being replaced by H^+ and OH^- by SO_4^{2-}. It is not precipitation reaction because Na_2SO_4 is soluble in water.	4
29	*Student to attempt either option A or B.* A. (a) x = 3, y = 6 (b) Propene (c)  (d) Propanol (e) $C_3H_6 + H_2 \xrightarrow{Ni} C_3H_8$ $CH_2=CH-CH_3 + H_2 \xrightarrow{Ni} CH_3-CH_2-CH_3$ **OR** B. (a) Ionic bond (b) Q_2P (c) Basic, metallic oxides are basic in nature. (d) $2C_2H_5OH + 2Q \rightarrow 2C_2H_5OQ + H_2$ (e) CP_2 *For visually impaired students* A. (a) x = 3, y = 6	5

S. No.	Volume of dil NaOH taken (mL)	Drops of dil H_2SO_4 used
1	2	20 (1 mL)
2	3	30 (1.5 mL)
3	4	40 (2 mL)
4	6	3 mL = 60 drops

	(b) Propene (c) Unsaturated hydrocarbon (d) Propanol (e) $C_3H_6 + H_2 \xrightarrow{Ni} C_3H_8$ **OR** B. (a) Covalent bond (b) Ionic bond (c) CaO, due to presence of free ions in molten state. (d) CaO is solid while CO_2 is a gas. (e) 4	
Section – C		
30	D. I and III	1
31	A. As sunlight passes through the atmosphere, ***Rayleigh scattering causes*** shorter wavelengths, such as blue and violet, to scatter more than other colors, but our eyes are more sensitive to blue than violet.	1
32	C. A is true but R is false	1
33	A. The optical instrument shown in the figure is a concave lens. B. The image formed is a virtual image. C. To find the focal length for of a concave lens, we can use the lens formula: $\frac{1}{f} = \frac{1}{v} - \frac{1}{u}$ where: • $u =$ - 20 cm (object distance, taken as negative for concave lenses), • $v =$ - 10 cm (image distance, also taken as negative since the image formed by a concave lens is virtual). Solution: 1. Substitute the values into the lens formula: $\frac{1}{f} = \frac{1}{-10} - \frac{1}{-20}$ 2. Simplify the terms: $\frac{1}{f} = \frac{1}{-10} - \frac{1}{-20}$ 3. Find a common denominator: $\frac{1}{f} = -\frac{2}{20} + \frac{1}{20} = -\frac{1}{20}$ 4. Solve for f: $f =$ - 20 cm	2

	- - - - - - - - - - - - *For visually impaired students* A. A convex lens can form a virtual image when the object is placed between the lens and its focal point. B. A convex lens can focus parallel rays of sunlight to a single point, known as the **focal point**. Sunlight contains energy, and when this light is concentrated at a small point, the energy density increases significantly. This focused light energy raises the temperature at the focal point, which can become high enough to ignite a piece of paper placed at that point.	
34	*Student to attempt either A or B.* A. (i) $R = \frac{R_1 R_2}{R_1 + R_2} = \frac{8 \times 8}{8 + 8} = 4\ ohms$ (ii) $I = \frac{V}{R} = \frac{8}{(4+4)} = 1\ A$ **OR** B. (i) $\frac{1}{R_P} = \frac{1}{R_1} + \frac{1}{R_2} = \frac{1}{24} + \frac{1}{24} = \frac{2}{24}$ R_p = 12 ohms $R_T = R_p + 12$ = 24 ohms $I = \frac{V}{R} = \frac{6}{24} = 0.25\ A$ (ii) Same readings of A_1 and A_2 - - - - - - - - - - - - *For visually impaired students* A. (i) Maximum Resistance: • To get the maximum resistance, connect all four resistors in series. • The total resistance R_{max} in series is the sum of the individual resistance: $R_{max} = R + R + R + R = 4R$ (ii) Minimum Resistance: • To get the minimum resistance, connect all four resistors in parallel.	2

- The total resistance R_{min} in parallel is given by:

$$\frac{1}{R_{\min}} = \frac{1}{R} + \frac{1}{R} + \frac{1}{R} + \frac{1}{R} = \frac{4}{R}$$

$$R_{\min} = \frac{R}{4}$$

OR

B.

$$R = \frac{\rho \cdot l}{A}$$

Given:

- Initial length, $l = 2\,\text{m}$
- Cross-sectional area, $A = 0.5\,\text{mm}^2 = 0.5 \times 10^{-6}\,\text{m}^2$
- Resistivity of copper, $\rho = 1.7 \times 10^{-8}\,\Omega \cdot \text{m}$

Step 1: Calculate the initial resistance R_1 and l = 2 m

$$R_1 = \frac{\rho \cdot l}{A} = \frac{1.7 \times 10^{-8}\,\Omega \cdot \text{m} \times 2\,\text{m}}{0.5 \times 10^{-6}\,\text{m}^2}$$

$$R_1 = \frac{3.4 \times 10^{-8}}{0.5 \times 10^{-6}}\,\Omega = 0.068\,\Omega$$

Step 2: Calculate the new resistance R_2 and l = 4 m (double length)

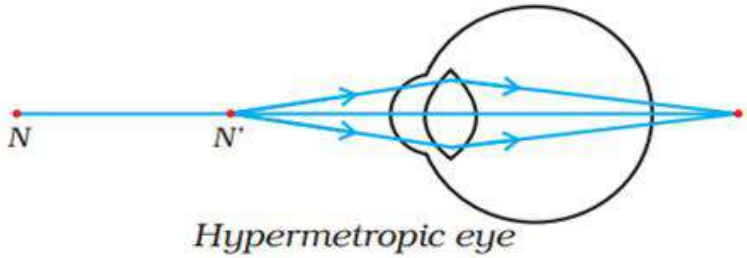
$$R_2 = \frac{\rho \cdot (2l)}{A} = 2 \times R_1 = 2 \times 0.068\,\Omega = 0.136\,\Omega$$

The resistance of the wire when the length is double is 0.136 Ω

35

(i) Hypermetropia is the deficiency in vision and the lens is convex lens.

(ii)



Hypermetropic eye

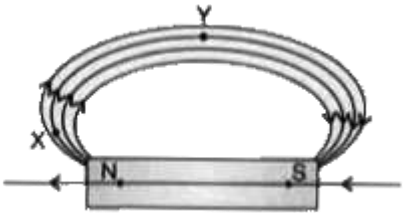
3

- - - - - - - - - - - -

For visually impaired students

(i) Dispersion of light is the phenomenon in which white light separates into its component colors (spectrum) when it passes through a medium, such as a prism. Different colours of light lend through different angles with respect to incident light, thus becoming district.

	(ii) Dispersion occurs when light passes from one medium to another where the speed of light is different for each wavelength. For example, in a prism, each color of light has a different refractive index due to varying wavelengths, causing each color to bend at different angles as they exit the prism. Dispersion only happens if the medium has a variable refractive index across different wavelengths, like glass or water. (iii) Presbyopia is caused by the gradual loss of flexibility in the lens of the eye, which occurs with aging. This reduced flexibility prevents the lens from changing shape effectively to focus on close objects, making it difficult to see them clearly.	
36	(i) Show that the cross-sectional area of the wire is about 5 x 10^{-7} m^2. The cross-sectional are *A* of a wire with diameter *d* is given by: $$A = \pi \left(\frac{d}{2}\right)^2$$ Substitute, d = 0.80 x 10^{-3} m: $$A = \pi \left(\frac{0.80 \times 10^{-3}}{2}\right)^2$$ $$A = \pi \left(0.40 \times 10^{-3}\right)^2$$ $$A = \pi \times (0.16 \times 10^{-6})\,\mathrm{m}^2$$ $$A \approx 3.14 \times 0.16 \times 10^{-6}\,\mathrm{m}^2$$ $$A \approx 5.024 \times 10^{-7}\,\mathrm{m}^2$$ Thus, the cross-sectional are *A* is approximately 5 x 10^{-7} m^2. (ii) To find the length l of the wire, we can use the formula of resistance: $$R = \frac{\rho \cdot l}{A}$$ Rearrange to solve for l : $$l = \frac{R \cdot A}{\rho}$$ Substitute the values: $$l = \frac{0.12 \cdot 5 \times 10^{-7}}{1.8 \times 10^{-8}}$$ $$l = \frac{6 \times 10^{-8}}{1.8 \times 10^{-8}}$$ $$l = \frac{6}{1.8}\,\mathrm{m}$$ $$l = 3.33\,\mathrm{m}$$ The student needs a length of approximately 3.33 m of given copper wire to make a 0.12 Ω resistor.	3

37	• Closeness of magnetic field lines is directly related to strength of magnetic field. • Strength of magnetic field at point X (pole) is more than point Y. • If the student redraws the diagram he/she should mark arrows correctly from North to South.  	3
38	A. Convex Lens B. Real and Inverted *Student to attempt either subpart C or D.* C. To find the object distance (u) for the lens, we can use the lens formula: $\frac{1}{f} = \frac{1}{v} - \frac{1}{u}$ where: • *f* = 50 mm (focal length), • *v* = 60 mm (image distance), • *u* is the object distance, which we need to calculate. Rearranging the formula to solve for u: $\frac{1}{u} = \frac{1}{v} - \frac{1}{f}$ Substitute the values: $\frac{1}{u} = \frac{1}{60} - \frac{1}{50}$ Calculate each term: $\frac{1}{u} = \frac{50 - 60}{3000} = \frac{-10}{3000} = -\frac{1}{300}$ Thus, the negative sign indicates that the object is located 300 mm in front of the lens (on the opposite side from the image). So, the object distance is: u = 300 mm **OR** D. image height = - 20 mm object height = 80 mm The magnification (m) of the lens is given by: $m = \frac{\text{image height}}{\text{object height}}$ Substituting the values: $m = \frac{-20mm}{80\ mm} = -\frac{1}{4}$	4

Thus, the magnification m = − 0.25 mm.

Magnification is also given by:

$$m = \frac{v}{u}$$

where:

- v is the image distance
- u = −150 mm

Rearrange to solve for v:

v = m × u = −0.25 × −150 mm = 37.5 mm

So, the image distance v = 37.5 mm.

The lens formula is:

$$\frac{1}{f} = \frac{1}{v} - \frac{1}{u}$$

Substituting the values of v and u:

$$\frac{1}{f} = \frac{1}{37.5} + \frac{1}{150}$$

Converting to a common denominator:

$$\frac{1}{f} = \frac{4+1}{150} = \frac{5}{150} = \frac{1}{30}$$

Thus, f = 30 mm

Answer: The focal length of the camera lens is 30 mm.

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For visually impaired students

A. Concave Lens for Flashlight and Convex Lens for solar cooker.
B. Concave lens diverges the light rays which is needed for a wider reach of the flashlight. Convex lens converges the rays which helps to raise the temperature of the place where rays converge.

Student to attempt either subpart C or D

C. To find the focal length (f) of the lens, we can use the information about the object distance (u) and the magnification (m).

Given:

- Object distance, u = − 40 cm
- The image is twice the size of the object, so the magnification,

$$m = -2$$

Since the magnification $m = \frac{v}{u}$, we can rearrange this to find the image distance v:

$$v = m \times u$$

	Substitute the values for m and u: $v = -2 \times -40 = 80$ cm The lens formula is : $\frac{1}{f} = \frac{1}{v} - \frac{1}{u}$ Substitute $v = 80\ cm$ and $u = -40\ cm$: $\frac{1}{f} = \frac{1}{80} - \frac{1}{-40} = \frac{1}{80} + \frac{1}{40}$ Convert to a common denominator: $\frac{1}{f} = \frac{1+2}{80} = \frac{3}{80}$ Thus, $f = \frac{80}{3} = 26.67$ cm (approximately) Answer : The focal length of the lens is approximately 26.67 cm. **OR** D. • Object distance, u = - 20 cm • Image distance v = - 10 cm (since the image is on the same side as the object) We can use the lens formula to calculate the focal length (f) : $\frac{1}{f} = \frac{1}{v} - \frac{1}{u}$ Substitute the values of v and u : $\frac{1}{f} = \frac{1}{-10} - \frac{1}{-20} = \frac{1}{-10} + \frac{1}{20}$ Finding a common denominator: $\frac{1}{f} = \frac{-2}{20} + \frac{1}{20} = -\frac{1}{20}$ Thus, $f = -20$ cm Answer: The focal length of the lens is - 20 cm, indicating it is a diverging lens (concave lens).	
39	<u>*Students to attempt either option A or B.*</u> A. (i) Power across the 100 Ω resistance = 81 W $P = I^2R = 81\ W$ $\therefore I^2 = \frac{81}{100}$ $\therefore I = \sqrt{\frac{81}{100}} = \frac{9}{10} = 0.9\ A$	5

(ii) Voltage across the 25 Ω resistors = $V_2 = IR_{eqv}$
for the 25 Ω resistors

$$\frac{1}{R_{eqv}} = \frac{1}{25} + \frac{1}{25} = \frac{2}{25}$$

$$\therefore R_{eqv} = \frac{25}{2} = 12.5\,\Omega$$

$$\therefore V_2 = 0.9\,A \times 12.5\,\Omega = 11.25\,V$$

(iii) Voltage across 100 Ω = $V_{100} = IR = 0.9\,A \times 100\,\Omega = 90\,V$

$$\therefore V_1 = 90\,V + 11.25\,V = 101.25\,V$$

OR

B.

(i) $P = \frac{V^2}{R}$

$$\therefore R = \frac{V^2}{P} = \frac{240 \times 240}{1200} = 48\,\Omega$$

(ii) For S_1 and S_3 closed

– Current in C

$V = IR\ (Ohm's\ Law)$

$$\therefore I = \frac{V}{R} = \frac{240\,V}{48\,\Omega} = 5\,A$$

– Current in A and B

$$V = IR\ (Ohm's\ Law)$$

$$\therefore I = \frac{V}{R} = \frac{240\,V}{96\,\Omega} = 2.5\,A$$

(iii) Power across A for S_1, S_2, S_3 closed

$$P_A = I^2R = 5^2 \times 48 = 1200\,W = 1.2\,KW$$

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For visually impaired students

A.

(i) In household circuits, the fuse is connected in series with all appliances to ensure that it can cut off the entire circuit in case of excessive current, preventing hazards like fires or damage. This way, any overload or short circuit causes the fuse to blow, protecting all appliances.
Appliances are connected in parallel to ensure each receives the same voltage from the mains and can operate independently. This setup allows appliances to work simultaneously and efficiently, with each drawing only the current it needs, without affecting others.

Give Data:

- Power of heater, P_{heater} = 1500 W
- Power of Fan, P_{fan} = 500 W

- Supply Voltage, V = 220 V
- Fuse rating = 10 A

Step 1: Calculate the Current Drawn by Each Appliance

Using the formula = $I = \frac{P}{V}$:

1. Current drawn by the heater:

$$I_{\text{heater}} = \frac{P_{\text{heater}}}{V} = \frac{1500\,\text{W}}{220\,\text{V}}$$

I_{heater} = 6.82 A (rounded to two decimal places)

2. Current drawn by the fan:

$$I_{fan} = \frac{P_{fan}}{V} = \frac{500\ W}{220\ V}$$

I_{fan} = 2.27 A (rounded to two decimal places)

Step 2 : Calculate the total curent in the circuit

Since the heater and fan are connected in parallel, the total curent I_{total} is the sum of the currents through each appliance:

$$I_{\text{total}} = I_{\text{heater}} + I_{\text{fan}}$$

$$I_{\text{total}} = 6.82\,\text{A} + 2.27\,\text{A}$$

$$I_{\text{total}} = 9.09\,\text{A}$$

Step 3: Compare with the Fuse Rating
The fuse is rated for 10 A, and the total current drawn by the heater and fan together is 9.09 A.

Since 9.09 A < 10 A, the fuse will not blow and is appropriate for this circuit, as the total current is within the fuse's capacity.

OR

B.

Given data:

- Resistor R_1 = 6 Ω
- Resistor R_2 = 12 Ω
- Voltage V = 24 V
- Time t = 5 Minutes = 5 x 60 = 300 seconds

Step 1: Calculate the Current through each Resistor

Since the resistors are connected in parallel, the voltage across each resistor is the same as the battery voltage, V = 24 V.

Using Ohm's Law, $I = \frac{V}{R}$:

Current through R_1

$$I_1 = \frac{V}{R_1} = \frac{24\,\text{V}}{6\,\Omega} = 4\,\text{A}$$

Current through R_2:

$$I_2 = \frac{V}{R_2} = \frac{24\,\text{V}}{12\,\Omega} = 2\,\text{A}$$

Step 2: Calculate the Heat Generated in Each Resistor

Using Joule's Law of Heating, $H = I^2Rt$:

- Heat generate in R_1:

$$H_1 = I_1^2 \times R_1 \times t = (4\,\text{A})^2 \times 6\,\Omega \times 300\,\text{s}$$

$$H_1 = 16 \times 6 \times 300 = 28800\,\text{J}$$

- Heat generate in R_2:

$$H_2 = I_2^2 \times R_2 \times t = (2\,\text{A})^2 \times 12\,\Omega \times 300\,\text{s}$$

$$H_2 = 4 \times 12 \times 300 = 14400\,\text{J}$$

- Total Heat Generated *H:*

$$H_{\text{total}} = H_1 + H_2 = 28800\,\text{J} + 14400\,\text{J} = 43200\,\text{J}$$

So, the total heat generated in both resistor is **43200 J.**

Step 3 : Determine if each Resistor is safe

The power dissipated by each resistor can be calculated using $P = V \times I$

- Power dissipated by R_1 :

$$P_1 = V \times I_1 = 24\,\text{V} \times 4\,\text{A} = 96\,\text{W}$$

- Power dissipated by R_2:

$$P_2 = V \times I_2 = 24\,\text{V} \times 2\,\text{A} = 48\,\text{W}$$

Given that the power rating of each resistor is 100 W:

- R_1 is operating at 96 W, which is within the 100 W limit. Hence, it is safe.
- R_2 is operating at 48 W, which is also within the 100 W limit. Hence, it is safe.

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SOCIAL SCIENCE-Code- 087
SAMPLE QUESTION PAPER
CLASS: X (2025-26)

Time Allowed: 3 Hours **Maximum Marks: 80**

General Instructions:

1. There are 38 questions in the Question paper. All questions are compulsory.
2. The question paper has Four Sections – A-History, B-Geography C- Political Science, and D-Economics.
3. Each Section is of 20 Marks and has MCQs, VSA, SA, LAs and CBQ.
4. Very Short Answer Type Questions (VSA), carry 2 marks each. Answers to each question should not exceed 40 words.
5. Short Answer Type Questions (SA), carry 3 marks each. Answers to each question should not exceed 60 words.
6. Long answer type questions (LA), carry 5 marks each. Answers to each question should not exceed 120 words.
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.
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)
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.
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.

Sr.No **SECTION A** **Marks**
HISTORY (20 marks)

1. Match the following and Choose the correct option: **1**

	COLUMN I		**COLUMN II**
A	Frederic Sorrieu	1	Torch of enlightenments
B	Statue of Liberty	2	Shattered remains of absolutist Institutions
C	Foreground in front of the Statue of Liberty	3	Democratic and Social Republics
D	Sorrieu's utopian vision.	4	French Artist

1.A-4, B-1, C-2, D-3
2.A-2, B-4, C-4**,** D-1
3.A-1, B-2, C-4, D-3
4.A-4, B-1, C-3, D-4

Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26

2. Identify and name the leader shown in the picture given below: - **1**

Source-India and the Contemporary World-II, NCERT

A. Lala Lajpat Rai
B. Bal Gangadhar Tilak
C. Gopal Krishan Gokhale
D. Raja Rammohan Roy

Note: The following question is for Visually Impaired Candidates only in lieu of Q. No. 2

Which one option from the following is the appropriate reason for the formation of the Swaraj party?

A. To ask for Poorna Swaraj for Indians.
B. To return to Council Politics.
C. To ask Dominion State for India.
D. To oppose Simon Commission.

3. Thousands of people fled Europe for America in the 19th century due to - **1**

A. Widespread poverty and deadly diseases
B. Frequent famines and poor living conditions
C. Continuous wars and political instability
D. Harsh climate and repeated natural disasters

4. Louise-Sebastien Mercier proclaimed "Tremble, therefore, tyrants of the world! Tremble before the virtual writer!" Who are referred to as the tyrants in this context? **1**

A. Educated classes who wanted to change the society
B. Absolutist institutions like monarchy and church
C. Authors of the new books
D. Printing press

Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26

5A. "The Silk route was a good example of vibrant pre-modern trade and cultural links between distant parts of the world." Explain the statement with any two examples. **2**

OR

5B. 'Sometimes the new crops could make the difference between life and death.'. Explain the statement.

6 A. 'A variety of cultural processes played an important role in developing a sense of nationalism in India'. Support the statement with suitable examples. **3**

OR

6 B. Salt March 'became an effective tool of resistance against colonialism.' Justify the statement with suitable arguments.

7A. 'In Britain the formation of the nation-state was not the result of a sudden upheaval or revolution but was the result of a long-drawn-out process.' Analyze this statement with suitable reasons. **5**

OR

7B. 'The Treaty of Vienna was drawn up in 1815 with the object of undoing most of the changes that had come about in Europe during the Napoleonic wars.' Highlight the significant provisions of this treaty.

8. **Read the given text and answer the following questions**:(1+1+2=4) **4**

Why Newspapers?

Krishnaji Trimbuck Ranade inhabitant of Poona intends to publish a Newspaper in the Marathi Language with a view of affording useful information on every topic of local interest. It will be open for free discussion on subjects of general utility, scientific investigation and the speculations connected with the antiquities, statistics, curiosities, history and geography of the country and of the Deccan especially... the patronage and support of all interested in the diffusion of knowledge and Welfare of the People is earnestly solicited.

Bombay Telegraph and Courier, 6 January 1849

"The task of the native newspapers and political associations is identical to the role of the Opposition in the House of Commons in Parliament in England. That is to critically examine government policy to suggest improvements, by removing those parts that will not be to the benefit of the people, and also by ensuring speedy implementation.

These associations ought to carefully study the particular issues, gather diverse relevant information on the nation as well as on what are the possible and desirable improvements, and this will surely earn it considerable influence".

Source: Native Opinion, 3 April 1870

8.1. Explain the main reason for publishing newspapers by Krishna ji.

Please note that the assessment scheme of the Academic Session 2024-25 will continue in the current session i.e. 2025-26

8.2. How was the task of native newspaper and political association seen identical to the role of the opposition?

8.3. Analyze the reasons for the popularity of newspapers during the 19th century.

MAP SKILL-BASED QUESTION (2 marks)

9. Two places A and B have been marked on the given outline map of India. Identify them and write their correct names on the lines marked on the map. **(1+1= 2)**

A) The place where the Civil Disobedience Movement was launched.
B) The city where Indian National Congress session was held in September 1920.

Note: The following question is for Visually Impaired Candidates only in lieu of Question 9.
A) The place where the Civil Disobedience Movement was launched.
B) The place where Indian National Congress session was held in September 1920

SECTION B
GEOGRAPHY (20 marks)

10. What is essential for resource development to contribute to overall development? **1**

A. The availability of resources alone is enough.
B. The presence of foreign invaders and their governance.
C. Technological development and institutional changes.
D. Only human resources can contribute to development.

11. Identify the appropriate option to fill in the empty boxes: **1**

Classification of Soils

Alluvial	**?**	**?**
Ideal for the growth of sugarcane, paddy, wheat and other cereal and pulse crops.	Ideal for growing cotton	suitable for crops like cashew nut.

A. Black soil, Red and Yellow soils
B. Laterite soil, Black soil.
C. Red & Yellow soils & Black soil.
D. Black soil & Laterite soil.

12. A total of 628 tigers died in India during the past five years due to natural causes and **1**

other reasons, including poaching, according to government data. Meanwhile, 349 people were killed in tiger attacks during this period, with Maharashtra alone recording 200 deaths.

[*source: https://www.ptinews.com/story/national/628-tigers-died-in-india-in-past-five-years-govt-data/1685133t/*]

Which of the following is the most significant indirect consequence of poaching on the tiger population?

A. Reduction in the prey species, dwindling tiger's food supply.
B. Increase in human-wildlife conflicts in protected areas
C. Rise in the tiger population.
D. Decrease in tourism revenue in national parks

13. Based on the classification of forests, which of the following statements would most likely apply to states like Jammu and Kashmir, Andhra Pradesh, and Kerala? **1**

A. These states mostly have forests managed as reserved or protected forests for conservation.
B. They rely on unclassed forests and local community management for forest conservation.
C. They have forest resources and primarily focus on industrial development.
D. There are no classified forests and forest management is entirely left to private ownership.

14. Which one of the following states has made roof top water harvesting compulsory in India? **1**

A. Haryana
B. Punjab
C. Assam
D. Tamil Nadu.

15. Which of the following statements best evaluates the overall goal of the *Pradhan Mantri Krishi Sinchaee Yojana*? **1**

A. Addressing the negative ecological effects of large dams by reducing water usage.
B. To provide better irrigation systems and sustainable water conservation practices for farmers.
C. Shifting farmers from traditional crops to more commercial, water-intensive crops.
D. Preserve the natural river flow and prevent the fragmentation of aquatic ecosystems.

16. Rice is grown as a commercial crop in Haryana and Punjab, but as a subsistence crop in Odisha. Using your understanding of geographical factors and economic practices, explain why rice cultivation differs in these regions. **2**

17A. Person P is willing to establish a mineral based industry. He has been advised to set up a bauxite industry in Odisha as a suitable way to make a profitable venture. Analyse the possible reasons behind the advice given to her. **5**

OR

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17B. 'Coal is the most important and abundant fossil fuel in India.' Justify the statement by evaluating the significant role it plays in the growth of the Indian economy in its different forms.

18. Read the given text and answer the following questions:(1+2+1=4) **4**

Global pollution is rising due to rapid economic growth, population increases, and insufficient environmental management. This poses serious health risks for people and ecosystems, particularly in low- and middle-income countries. Contributing to these challenges, the global economy relies on deeply intertwined supply chains, sustained by more than 100 billion tons of raw materials entering the system each year. Intensive material consumption depletes natural resources and causes negative environmental impacts at every stage of the product lifecycle. Global waste is expected to increase to 3.4 billion tons by 2050.

Pollution of all types hinders development outcomes. Exposure to air pollution, water pollution, and hazardous chemicals and wastes like mercury, lead and persistent organic pollutants (POPs) causes debilitating and fatal illnesses, creates harmful living conditions, and destroys ecosystems. Pollution undermines sustainable economic growth, exacerbates poverty and inequality in both urban and rural areas, and significantly contributes to climate change. Poor people, who cannot afford to protect themselves from the negative impacts of pollution, end up suffering the most. Pollution is the largest environmental cause of disease and premature death. It is estimated to be several times more deaths than from AIDS, tuberculosis, and malaria combined. Global health crises, such as the COVID-19 pandemic, are reminders of the strong linkages between environment and health and of the need to address such linkages systematically. *[Source:* https://www.worldbank.org/en/topic/pollution]

18.1 Why do you think is global waste expected to increase by 2050?

18.2 How do manufacturing industries cause pollution of different types? Explain with examples.

18.3 Is it correct to consider pollution as a possible cause for worsening of the current global trends of poverty and inequality? Justify.

MAP SKILL-BASED QUESTION (3 marks)

19. On the same outline map of India locate and label the following with suitable symbols**:** **1**

I.(p) The dam in the Sutlej-Beas river basin, which is being used both for hydel power production and irrigation.

OR

(q) The dam in the Mahanadi basin that integrates conservation of water with flood control.

II. Any two of the following: **(1x2= 2)**

(i) A major sea port in West Bengal

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(ii) An international airport in Tamil Nadu
(iii) An international airport in Punjab

Note: The following question is for Visually Impaired Candidates only in lieu of Q. No. 19.

b) Answer **any three** of the following:

i Name the dam in the Mahanadi basin that integrates conservation of water with flood control.
ii Specify the name of a major sea port in West Bengal.
iii Name an international airport in Tamil Nadu.
iv State the name of an international airport in Punjab.

SECTION C
POLITICAL SCIENCE (20 marks)

20. Which of the following statement(s) are true with respect to the ethnic composition of Belgium? **1**

I. 59 percent of the total population of Belgium lives in the Wallonia region and speaks French.
II. 40 percent live in the Flemish region and speak Dutch.
III. One percent of the Belgians speak German.
IV. In the capital city Brussels, 80 percent people speak French while 20 per cent are Dutch speaking.

Choose the correct option:

A. I and II
B. III and IV
C. I, II and III
D. I and IV

21. The cartoon below depicts Germany's government that was formed after the 2005 elections. It included the two major parties of the country, namely the Christian Democratic Union and the Social Democratic Party. The two parties are historically rivals to each other. Which of the following options best explains the cartoon? **1**

Source-Democratic Politics, NCERT

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A. Coalition Government.
B. Two Party System.
C. Democratic government.
D. Bi-party system.

Note: The following question is for Visually Impaired Candidates only in lieu of Q. No. 21

Consider the following statements on Power Sharing and choose the correct statement(s) -

I. Imposing the will of the majority community over others.
II. It helps in reducing the possibility of conflict between the social groups.
III. Power Sharing is a good way to ensure the stability of political order.
IV. It brings socio- political opposition among parties.

Choose the correct option:

A. I and II
B. I and III
C. II and IV
D. II and III

22. Consider the following case and choose the correct option- **1**

Suppose the Government of India plans to issue new currency. The Government of one state is opposed to this policy of the Central Government. Can the state government stop the union government from implementing this policy?

A. Yes, because Currency is the subject of State List
B. No, because Currency is a subject of Union List
C. Yes, because the approval of both the governments is necessary to implement this change.
D. No, because any such change must be approved by the local government also.

23. Two statements are given as Assertion (A) and Reason(R). Study the statements carefully and identify the correct alternative: **1**

ASSERTION (A): Exclusive attention to caste can produce negative results in democracy.

REASON (R): It can divert attention from other issues.

Choose the correct option:

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

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24. Highlight any two key features of federalism. **2**

25. 'Women in India face discrimination, disadvantages and oppression in many ways.' Highlight any two aspects of life where you witness this inequality. **2**

26. 'Democracy leads to peaceful and harmonious life among citizens in every sphere.' Support this statement with suitable arguments. **3**

27A. 'Political parties play a significant role in the effective working of a democracy.' Explain. **5**

OR

27B. 'The challenge of dynastic succession is undoubtedly a major challenge for political parties in India.' Analyse the statement'.

28. **Read the given text and answer the following questions**:(1+1+2=4) **4**

Sri Lanka emerged as an independent country in 1948. The leaders of the Sinhala community sought to secure dominance over government by virtue of their majority. As a result, the democratically elected government adopted a series of MAJORITARIAN measures to establish Sinhala supremacy. Over the years, it created feelings of alienation among the Sri Lankan Tamils. They felt that none of the major political parties led by the Buddhist Sinhala leaders was sensitive to their language and culture. As a result, the relations between the Sinhala and Tamil communities strained over time. On the other hand, the Belgian leaders took a different path. They recognised the existence of regional differences and cultural diversities. Between 1970 and 1993, they amended their constitution four times to work out an arrangement that would enable everyone to live together within the same country.

Source-Adapted from Power Sharing,NCERT

28. 1 State any two demands of Tamils in Sri Lanka.

28. 2 State the results of the Majoritarian Government in Sri Lanka.

28. 3 Explain any two provisions of the Belgian model of power sharing.

SECTION D
ECONOMICS (20 marks)

29. Underemployment is caused when - **1**

A. More workers are employed than actually required
B. Fewer workers are employed than actually required
C. Workers are paid more than their actual output
D. Jobs are given only to highly educated workers

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30. What can be inferred about the limitations of using per capita income (average income) to compare well-being across countries? Choose the correct option as the answer. **1**

A. It shows how equally or unequally income is distributed among the people in a country.
B. The only measure needed to understand a country's development is Per capita income.
C. It gives a basic idea of economic well-being but hides the income inequality.
D. It only reflects the industrial growth of a country and does not consider other important factors.

31. Which of the following examples best demonstrates how the tertiary sector supports both the primary and secondary sectors? **1**

A. Farmers grow vegetables and sell them directly to consumers, with no transportation or storage involved.
B. A factory makes shoes and uses raw materials like leather to create the product, relying on transport and retail stores to distribute the shoes.
C. A bakery bakes bread and uses delivery services to send the bread to local shops for sale, without any direct involvement of raw materials.
D. A company produces furniture from wood, but does not require any transport or retail services to sell the product.

32. Which one of the following issues currency notes in India? **1**

A. Finance Ministry.
B. Reserve Bank of India.
C. State Bank of India.
D. Central Bank of India.

33. Person Z tries to explain how the requirement of a double coincidence of wants in a barter system limits trade and exchange. Which of the following justification do you think will be used by him/her? **1**

A. It makes trade more complicated, as each person must have what the other person wants, limiting the pool of potential trade partners.
B. The barter system allows trade to be conducted more efficiently since both parties already know what they need from the transaction.
C. It increases the number of exchanges because each person can trade for exactly what they want.
D. The system creates value for goods by ensuring that both parties have a direct need for each other's goods.

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34. Recognize and choose the option that correctly matches the effects and consequent outcomes of globalization. **1**

Column A (Effects of globalisation)	Column B (Outcomes)
1.Increased foreign investment	i. Expansion of global markets and access to technology
2.Cultural exchange and awareness	ii. Loss of traditional jobs due to automation and cheaper labor elsewhere
3.Techonological exchange and awareness	iii. Spread of cultural practices, ideas, and values across borders
4.Growth of multinational corporations	iv. Large companies becoming dominant players in global markets

Choose the correct option:
A. 1-iii, 2-ii, 3-i, 4-iv
B. 1-iv, 2-ii, 3-i, 4-iii
C. 1-ii, 2-iv, 3-iii, 4-i
D. 1-i, 2-iii, 3-ii, 4-iv

35. Evaluate the utility of public services in contributing to the overall well-being of individuals and society. **3**

36. 'Expanding access to loans in the formal sector is important, yet it is equally critical that these loans are accessible to all people for national development.' Justify the statement. **3**

37. Highlight the significant three factors that have contributed to the growth of globalisation. **3**

38A. A research student spoke with two people, M and N to learn about their work-related differences. On the basis of the interview conducted with both of them, the student concludes that while person M was working in an organized sector, person N was an employee of a workplace that was functioning in an unorganised way. Analyse the key differences between the two sectors that must have enabled the research student to come to this conclusion. **5**

OR

38B. Privatisation can have both positive and negative effects on the economy. Support the statement with argument.

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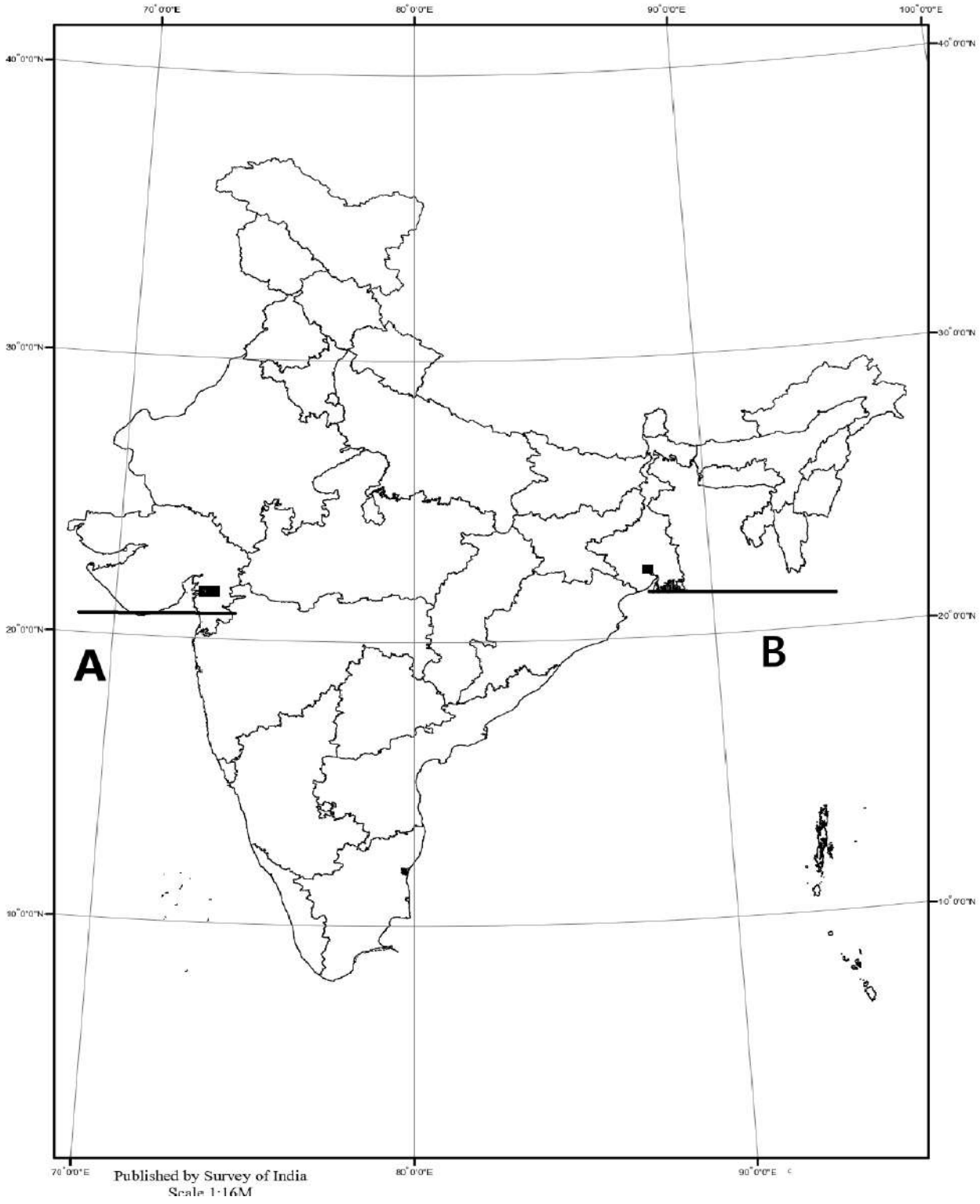
Map for Q. no. 9 (Section A) & Q. no. 19 (Section B)



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MARKING SCHEME
SOCIAL SCIENCE (087)
CLASS-X (2025-26)

Time Allowed: 3hrs **Max. Marks:80**

	SECTION A **HISTORY (20 marks)**	
1	1- A-4, B-1, C-2, D-3	**1**
2	B- Bal Gangadhar Tilak **V.I candidates** – B - To return to Council Politics	**1**
3	A - Widespread poverty and deadly diseases	**1**
4	B - Absolutist institutions like monarchy and church	**1**
5A.	1. Chinese pottery, textiles and spices from India and Southeast Asia also travelled the same route. In return, precious metals - gold and silver - flowed from Europe to Asia. 2. Trade and cultural exchange went hand in hand. Buddhism from India spread in several directions through intersecting points on the silk routes. 3. Early Christian missionaries travelled this route to reach Asia and Muslim preachers took the same route a few centuries later. (Any 2 points)	**2**
	OR	
5B.	1. Sometimes new crops like potatoes could make the difference between life and death. It was with the introduction of the humble potato that Europe's poor began to eat well, eat better and live longer. 2. Ireland's poor peasants became so dependent on potatoes that when the potato crop was destroyed by disease in the mid-1840s, hundreds of thousands of peasants died of starvation	
6A.	**1. Figure or Image –** The identity of India came to be visually associated with the image of Bharat Mata. This image was created by Bankim Chandra Chattopadhyay. Rabindranath Tagore painted his famous image of Bharat Mata. In this painting, Bharat Mata is portrayed as an ascetic figure; she is calm, composed, divine and spiritual. **2. Songs –** Bankim Chandra Chattopadhyay wrote 'VandeMataram' as a hymn to the motherland. It was included in his novel Anandmath and widely sung during the Swadeshi Movement in Bengal. **3. Folklore** – Indian folklore was revived. In late-nineteenth-century India, nationalists began recording folk tales sung by bards and they toured villages to gather folk songs and legends. These tales gave a true picture of traditional culture. It helped to restore a sense of pride in our past. In Bengal, Rabindranath Tagore himself began collecting ballads, nursery rhymes and myths, and led the movement	**3**

	for folk revival. In Madras, Natesa Sastri published a massive four-volume collection of Tamil folk tales, The Folklore of Southern India. **4.– Flag** (**A).** During the Swadeshi movement in Bengal, a tricolour flag (red, green and yellow) was designed. It had eight lotuses representing eight provinces of British India, and a crescent moon, representing Hindus and Muslims. **(B).** By 1921, Gandhiji had designed the Swaraj flag. It was again a tricolour (red, green and white) and had a spinning wheel in the centre, representing the Gandhian ideal of self-help. Carrying the flag, holding it aloft, during marches became a symbol of defiance. **5. Re – interpretation of History** – Indians began looking into the past to discover India's great achievements. They wrote about art and architecture, Science and Maths, religion and culture, law, philosophy etc. Indians were asked to take pride in India's great achievements in the past and struggle to change the miserable conditions of life under British rule. (Any three points to be considered)	
	OR	
6B.	1. Salt became an effective tool of resistance against colonialism because of the following reasons: Gandhiji found in salt a powerful bond that would unite the nations as it – was consumed by all rich and poor alike. 2. Gandhiji's letter to Viceroy Irwin stated eleven demands. Most of them were of general interest but the most stirring was to abolish the salt tax imposed by the colonial government. 3. Irwin's unwillingness to negotiate forced Gandhiji to start his salt March which was joined by thousands. It developed the feeling of nationalism. 4. People in different parts of the country broke salt law and manufactured salt and demonstrated in front of government salt factories. 5. People unitedly followed Gandhiji's words. They refused to pay taxes, revenues, picketed liquor shops, boycotted foreign clothes, resigned from government jobs and violated forest laws. (Any three points to be considered)]	
7A.	1. In Britain the formation of the nation-state was not the result of a sudden upheaval or revolution. The primary identities of the people who inhabited the British Isles were ethnic ones - such as English, Welsh, Scot or Irish. 2. The Act of Union (1707) between England and Scotland resulted in the formation of the 'United Kingdom of Great Britain' meant that England was able to impose its influence on Scotland. Scotland's distinctive culture and political institutions were systematically suppressed. 3. The Scottish Highlanders were forbidden to speak their Gaelic language or wear their national dress and large numbers were forcibly driven out of their homeland. 4. The English helped the Protestants of Ireland to establish their dominance over a largely Catholic country. Catholic revolts against British dominance were suppressed. Ireland was forcibly incorporated into the United Kingdom in 1801. 5. The symbols of the new Britain - the British flag, the national anthem, the English language were actively promoted and the older nations survived only as subordinate partners in this union.	**5**
	OR	

7B	1. The Bourbon dynasty, which had been deposed during the French Revolution, was restored to power, and France lost the territories it had annexed under Napoleon. 2. A series of states were set up on the boundaries of France to prevent French expansion in future. Thus the kingdom of the Netherlands, which included Belgium, was set up in the north and Genoa was added to Piedmont in the south. 3. Prussia was given important new territories on its western frontiers, while Austria was given control of northern Italy. 4. The German confederation of 39 states that had been set up by Napoleon was left untouched. In the east, Russia was given part of Poland while Prussia was given a portion of Saxony. 5. The main intention was to restore the monarchies that had been overthrown by Napoleon, and create a new conservative order in Europe.	
8.	**8.1** Krishnaji wanted to publish significant information about societal developments in the areas of politics, science, and other fields in order to inform the public. **8.2** The media used to criticise and analyse government policies were local newspapers and political organisations. As a result, both of these served as the government's opposition. **8.3** Reasons for popularity of newspapers during 19th century are: **i**. The political developments in the country began to interest a sizable portion of society, and this information was skillfully presented in the newspapers. **ii.** Newspapers started to serve as a source for societal advancements in social, cultural, and scientific	**(1+1+ 2=4)**
9.	Marked on the map. (Answers to the questions for the V.I candidates are also the same-though only naming of the locations is required.)	**(1+1= 2)**
	SECTION B **GEOGRAPHY (20 marks)**	
10.	C - echnological development and institutional changes.	**1**
11.	D - Black soil & Laterite soil.	**1**
12.	A. Reduction in the prey species leading to the tiger's dwindling food supp	**1**
13.	A - These states have a significant portion of forests managed as reserved or protected forests for conservation.	**1**
14.	D – Tamil Nadu	**1**
15.	B - To provide better irrigation systems and sustainable water conservation practices for farmers.	**1**
16.	**Climate and Irrigation:** ● Haryana and Punjab have a well-developed irrigation system (e.g., canal irrigation from the Sutlej-Yamuna Link Canal), which allows for large-scale	**2**

	commercial cultivation of rice. The climate is suitable for high-yielding varieties, and irrigation ensures water availability. ● In contrast, Odisha has a more monsoonal climate, and while rice is grown, the farming is often rainfed and primarily for local consumption. The lack of large-scale irrigation systems limits its commercialization. **Economic Factors (Market Access):** ● In Punjab and Haryana, rice is grown for commercial purposes to meet national and international demand. The proximity to markets, government procurement systems, and well-developed transport networks enable these states to export surplus rice. ● In Odisha, rice is mostly grown for personal or local use, with less access to large markets for profit-driven farming, making it a subsistence crop. **Farming Practices:** ● In Punjab and Haryana, the use of modern farming techniques, machinery, and high-yielding varieties supports commercial rice cultivation. ● In Odisha, rice farming is more traditional and focused on family sustenance rather than large-scale production, which reflects the subsistence nature of cultivation. Or any other relevant point(s) (Any 2 point to be considered out of which at least one should be related to climate and one economic)	
17A.	1. Odisha was the largest bauxite producing state in India in 2016- 17. Panchpatmali deposits in Koraput district are the most important bauxite deposits in the state. 2. Aluminium is an important metal because it combines the strength of metals such as iron, 3. It is a good alternative to other metals due to its extreme lightness and 4. also has good conductivity and 5. great malleability (any other relevant point - 5 points)	**5**
	OR	
17B.	Significance: -It is used for power generation, -To supply energy to industry as well as for domestic needs. -India is highly dependent on coal for meeting its commercial energy requirements.e.g., in metallurgy - any other relevant point (at least 2) Variety of coal types- Coal, is found in a variety of forms depending on the degrees of compression and the depth and time of burial.	

	1. Peat - Decaying plants in swamps produce peat. Which has a low carbon and high moisture contents and low heating capacity. 2. Lignite - is a low grade brown coal, which is soft with high moisture content. The principal lignite reserves are in Neyveli in Tamil Nadu and are used for generation of electricity. 3. Bituminous coal-Coal that has been buried deep and subjected to increased temperatures. It is the most popular coal in commercial use. Metallurgical coal is high grade bituminous coal which has a special value for smelting iron in blast furnaces. 4. Anthracite -is the highest quality hard coal.	
18.	**18.1** Due to intensive material production and consumption. **18.2** Manufacturing industries are a major cause for- 1) air pollution – Smoke is emitted by chemical and paper factories, brick kilns, refineries and smelting plants, and burning of fossil fuels in big and small factories that ignore pollution norms. Toxic gas leaks can be very hazardous with long-term effects. 2) Water pollution is caused by organic and inorganic industrial wastes and affluents discharged into rivers. The main culprits in this regard are paper, pulp, chemical, textile and dyeing, petroleum refineries, tanneries and electroplating industries that let out dyes, detergents, acids, salts and heavy metals like lead and mercury pesticides, fertilisers, synthetic chemicals with carbon, plastics and rubber, etc. into the water bodies. 3) Thermal pollution of water occurs when hot water from factories and thermal plants is drained into rivers and ponds before cooling. 4) Dumping of wastes specially glass, harmful chemicals, industrial effluents, packaging, salts and garbage renders the soil useless. 5)Rain water percolates to the soil carrying the pollutants to the ground and the ground water also gets contaminated. 6) Industrial and construction activities, machinery, factory equipment, generators, saws and pneumatic and electric drills also make a lot of noise. (Or any other relevant point) – Any two points **18.3** Poor people, cannot afford to protect themselves from the negative impacts of pollution, end up suffering the most. This also leads to social disparity/inequality due to the ill effects of poverty. (Can be explained with the help of an example)	**(1+2+ 1=4)**
19.	Marked on the map. (Answers to the questions for the V.I candidates are also the same-though only naming of the locations is required.)	**(1+2= 3)**
	SECTION C **POLITICAL SCIENCE (20 marks)**	
20.	B- III and IV	**1**
21.	A – Coalition Government. **V.I candidates** – D. II and III	**1**

22.	B - No, because Currency is a subject of Union List	**1**
23.	A - Both A and R are true, and R is the correct explanation of A.	**1**
24.	**Features of federalism:** 1. There are two or more levels (or tiers) of government. 2. Different tiers of government govern the same citizens, but each tier has its own jurisdiction in specific matters of legislation, taxation and administration. 3. The jurisdictions of the respective levels or tiers of government are specified in the constitution. So the existence and authority of each tier of government is constitutionally guaranteed. 4. The fundamental provisions of the constitution cannot be unilaterally changed by one level of government. Such changes require the consent of both the levels of government. 5. Courts have the power to interpret the constitution and the powers of different levels of government. The highest court acts as an umpire if disputes arise between different levels of government in the exercise of their respective powers. 6. Sources of revenue for each level of government are clearly specified to ensure its financial autonomy. 7. The federal system thus has dual objectives: to safeguard and promote unity of the country, while at the same time accommodate regional diversity. Therefore, two aspects are crucial for the institutions and practice of federalism. Governments at different levels should agree to some rules of power sharing. They should also trust that each would abide by its part of the agreement. An ideal federal system has both aspects: mutual trust and agreement to live together. (Any two point to be considered)	**2**
25.	**1. Education** – Literacy rate among women is only 54% as compared with 76% among men. Parents prefer to spend their resources for their sons' education rather than daughters. 2. **Low Proportion of women in highly paid and valued jobs** – Women still have a small share in the highly paid jobs. Even if a woman works for more hours than a man, her work is not given importance. This results in low paid and low valued jobs for women. 3. **Women are paid less than men** – Despite the Equal Wages of Act women are paid less than men, even when both do exactly the same work. 4. **Preference for Son** – In many parts of India parents prefer to have sons and find ways to have the girl child aborted before she is born. This has led to decline in child sex – ratio (927) 5. **Exploitation at workplace and domestic violence** – Women are exploited and harassed at the workplace. They have to face different forms of domestic violence at home. (Any 2 point to be considered)	**2**

26.	1. Democracies accommodate various social divisions. For example, Belgium has peacefully solved her ethnic problems and solved the differences. 2. All democracies usually develop a procedure to conduct competition, i.e. conduct elections, power-sharing, etc. This reduces the possibility of tensions, due to social divisions, turning violent or explosive. 3. Democracy teaches people to respect the differences and resolve conflicts among different groups peacefully. In non-democratic countries, rulers either turn a blind eye to or suppress internal differences. For example, Sri Lanka. The plus point in democratic regime is the ability to handle social differences, divisions and conflicts. 4. A democracy is not just a rule by majority opinion. The majority always needs to work with the minority so that the government represents the general view. 5. A democratic government ensures that the rule by the majority does not become autocratic in terms of religion, race or linguistic group etc. It tries to show that in every election, different persons and groups can form a majority. It tries to see that every citizen has a chance to be in majority at some point of time and is not barred on the basis of birth. All these things ensured by a democratic regime lead to a peaceful and harmonious life. (Any three points to be considered)	**3**
27A	Political parties play a significant role in the effective working of a democracy. To fill political offices and exercise political power, political parties are needed to perform a series of functions, which are the following 1. Parties contest elections. Elections are fought mainly among candidates put up by political parties. In India, top party leaders choose candidates for contesting elections. 2. Parties put forward different policies and programmes. Political parties in a democracy group together similar opinions, to provide a direction in which government policies can be formulated. 3. Parties make laws for a country. Laws are debated and passed in the legislature. 4. Parties that lose elections play the role of the opposition. Opposition parties voice their views by criticizing the government for its failure or wrong policies. 5. Parties shape public opinion. They raise and highlight issues and resolve people's problems. Many pressure groups are the extensions of political parties. 6. Parties provide people access to government machinery and welfare schemes. For an ordinary citizen it is easier to approach a local party leader than a government officer. (Any 5 points)	**5**
	OR	
27B	1. Most political parties do not practice open and transparent procedures for their functioning. So there are very few ways for an ordinary worker to rise to the top in a party. 2. Those who happen to be the leaders are in a position of unfair advantage as they favour people close to them or even their family members. 3. In many parties in India, we see a trend of dynastic succession. The top positions are always controlled by members of a particular family, which is unfair to other	

	members of the party, and bad for democracy. 4. This is so because people who do not have adequate experience or popular support come to occupy positions of power. 5. More than loyalty to party principles and policies, personal loyalty to the leader becomes more important. This tendency is seen all over the world, even in older democracies.	
28.	**28.1-** (a) To recognise Tamil as official language (b) Regional autonomy (c) Equality of opportunities in securing education and jobs. (Any one to be considered) **28.2-** The Majoritarian Government in Sri Lanka created a distrust between Tamils and Sinhala communities which resulted in civil war. As a result, thousands of people of both communities were killed and many families were forced to leave the country as refugees. **28.3** **1.** The Constitution prescribed that the number of Dutch and French Any two speaking ministers shall be equal in the central government. Some special laws require the support of majority of members from each linguistic group. Thus, no single community can make decisions unilaterally. **2.** Many powers of the central government have been given to state governments of the two regions of the country. The state governments are not subordinate to the Central Government. **3.** Brussels has a separate government in which Dutch and French have equal representation. **4.** Apart from the Central and the State Government, there is a third kind of Government. This 'community government' is elected by people belonging to one language community - Dutch, French and German - speaking - no matter where they live. This government has the power regarding cultural, educational and language - related issues. (Any two to be considered)	**(1+1+ 2=4)**
	SECTION D **ECONOMICS (20 marks)**	
29.	A - More workers are employed than actually required	**1**
30.	C - It gives a basic idea of economic well-being but hides the income inequality, cost of living, or access to essential services.	**1**
31.	B - A factory makes shoes and uses raw materials like leather to create the product, relying on transport and retail stores to distribute the shoes.	**1**

32.	B – Reserve Bank of India	**1**
33.	A - It makes trade more complicated, as each person must have what the other person wants, limiting the pool of potential trade partners.	**1**
34.	D - 1-i, 2-iii, 3-ii, 4-iv	**1**
35.	**Healthcare and Public Health:** ● Accessible and quality public healthcare, is fundamental for maintaining, a productive and healthy population. It reduces mortality rates, ensures the well-being of the workforce, and allows individuals to contribute meaningfully to the economy. Inadequate healthcare can result in a higher burden of disease, lower life expectancy, and economic inefficiencies. **Education and Skill Development:** ● Public education systems are essential for providing equal learning opportunities to all citizens, regardless of socioeconomic status. A well-educated population leads to increased literacy rates, skill development, and innovation, all of which are crucial for economic growth, reducing inequality, and fostering social cohesion. **Sanitation and Clean Water:** ● Proper sanitation and access to clean water are vital for maintaining public health and preventing diseases such as cholera and dysentery. These services significantly improve life expectancy, reduce healthcare costs, and increase productivity, especially in rural or underserved areas. **Infrastructure Development:** ● Public infrastructure, including roads, transportation, and energy, supports the functioning of markets, businesses, and industries. It enhances connectivity, stimulates economic activities, and improves the quality of life for individuals by providing easy access to essential goods and services. Or any other relevant point(s) - Any two	**1 ½ + 1 ½ =3**
36.	- Higher cost of borrowing from informal sources means a larger part of the earnings of the borrowers is used to repay the loan. Hence, borrowers have less income left for themselves (as we saw for Shyamal in Sonpur). - In certain cases, the high interest rate for borrowing can mean that the amount to be repaid is greater than the income of the borrower. -This could lead to increasing debt (as we saw for Rama in Sonpur) and debt trap. -Also, people who might wish to start an enterprise by borrowing may not do so because of the high cost of borrowing. -For these reasons, banks and cooperative societies need to lend more. This would lead to higher incomes and many people could then borrow cheaply for a variety of needs. -They could grow crops, do business, set up small-scale industries etc. They could set up new industries or trade in goods. Cheap and affordable credit is crucial for	**3**

	the country's development -Or any other relevant point(s) - Any 3	
37.	1. the movements of goods and services, 2. information and communication technology 3. Transportation technology 4. movement of people between countries 5. Liberalisation of foreign trade and foreign investment policy Any other relevant point (any 3 well explained)	**3**
38A.	**Working conditions of person M would have the following features:** **Regular Employment**: Workers have assured, regular work with fixed terms of employment. **Government Regulation**: Enterprises are registered with the government and follow legal rules and regulations (e.g., Factories Act, Minimum Wages Act). **Security of Employment**: Workers enjoy job security with clear working hours and benefits. **Overtime Compensation**: If workers work beyond regular hours, they are paid overtime. **Employee Benefits**: Workers receive benefits like paid leave, holidays, provident fund, gratuity, and medical benefits. **Safe Working Conditions**: Employers are required to provide safe working environments (e.g., clean drinking water). **Retirement Benefits**: Workers are entitled to pensions after retirement. **Formal Processes**: The sector follows formal processes and procedures for employment. **Working conditions of person N would have the following features:** **Irregular Employment**: Jobs are low-paid and often irregular, with no guarantee of continuous work. **Lack of Government Regulation**: The sector operates largely outside government control, with few or no legal protections. **No Employee Benefits**: Workers do not receive benefits like paid leave, overtime pay, or medical benefits. **Job Insecurity**: Employment is not secure; workers can be dismissed without notice or reason. **Seasonal Work**: Employment is often dependent on seasons, and workers may be laid off during off-peak periods. **Informal Jobs**: Many workers are self-employed, doing small jobs like street vending or repair work. **Dependence on Employer**: Employment conditions are influenced by the employer's whims and needs. **No Legal Protections**: There is little enforcement of rules or regulations related to working conditions or benefits.	**5**
	OR	
38B.	**Privatization: Positive Effects-** 1. Increased Efficiency and Productivity	

	2. Improved Quality of Services 3. Reduced Government Burden 4. Any other relevant point(s) **Privatization: Negative Effects-** 1. Exclusion of Public Welfare - Profit being the only motive 2. Loss of Employment Security 3. Wide gap between rich and poor - due to inaccessibility of basic facilities 4. Lower government accountability 5. Any other relevant point(s) (ANY 5 points to be accepted. However, at least 2 positive and 2 negative effects must be included in the response)	

Map for Q. no. 9 (Section A) & Q. no. 19 (Section B)