

CLASS - IX

Subject- English

SECTION A - READING

Q1. Read the following passage carefully:)

I Our house is filled with photos. They cover the walls of my kitchen, dining room and den. I see our family's entire history, starting with my wedding, continuing through the births of both sons, buying a home, family gatherings and vacations. When my sons were little, they loved to pose. They waved, danced, climbed trees, batted balls, hung upside down from the jungle gym and did anything for a picture. But when they reached adolescence, picture-taking changed into something they barely tolerated. Their bodies were growing at haphazard speeds. Reluctantly they stood with us or with their grandparents at birthday celebrations and smiled weakly at the camera for as short a time as possible.

I I am the chronicler of our photographs. I select those to be framed and arrange the others in albums. The process is addictive, and as the shelves that hold our albums become fuller and fuller, I wonder what will become of them. Will anyone look at these photographs in future years? If my sons look at them, what will they think of us and of themselves? One bright afternoon, I took some photographs of my father with my husband as they fished

in a lake near our vacation house. As my sons and I sat on the shore and watched them row away, I picked the camera up and photographed the beautiful lake surrounded by green trees. The two men I loved gradually grew smaller until all I could see were my father's red shirt, and the tan and blue caps on their heads.

I My father died a week later, and suddenly those photos became priceless to me. I wept when I pasted them in our album. I wept again afterwards when I saw my younger son looking at them. It was a few days before he went away to college. He had taken all our albums down from the bookshelves in the den and spread them out on the carpet. It had been a very long time since I had seen him doing this. Once he stopped posing for pictures, he seemed to lose interest in looking at them. But now he was on the verge of leaving home. This was his special time to look ahead and look back. I stood for a moment in the hall by the den, and then tiptoed away. I didn't take a photo of my son that afternoon, but I will remember how he looked for as long as I live. Some pictures, I learned, don't have to be taken with a camera.

1. **Fill in the summary using one word only.**

The author was (a) _____ about taking photographs and framing them. But she always (b) _____ whether her sons would ever look at them. She was full of (c) _____ when she pasted the pictures of her father's last days in the album. She learnt that some pictures always (d)

_____ in one's mind without a camera.

2. Two examples that show that the author's sons were averse to taking photographs are: (1x2=2 marks)

(a) _____

(b) _____

3. Give words that mean the same as

1. not organized or planned (para 1)
2. one who records events in order (para 2)
3. very valuable (para 3) priceless
4. continued engagement with an activity (para 2)

Q2. Read the following passage carefully.

1. Papaya is the healthiest fruit with a list of properties that is long and exhaustive. Papaya favours digestion as well as cures skin irritation and sun burns. You can munch on it as a salad, have it cooked or boiled or just drink it up as milkshake or juice. The most important of these virtues is the protein-digesting enzyme in the milky juice or latex. The enzyme is similar to pepsin in its digestive action and is said to be so powerful that it can digest 200 times its own weight in protein. It assists the body in assimilating the maximum nutritional value from food to provide energy and body-building materials.

2. Papain in raw papaya makes up for the deficiency of gastric juice and fights excess of unhealthy mucus in the stomach, dyspepsia and intestinal irritation. The ripe fruit, if

eaten regularly corrects habitual constipation, bleeding piles and chronic diarrhoea. The juice of the papaya seeds also assists in the above-mentioned ailments.

3. The juice, used as a cosmetic, removes freckles or brown spots due to exposure to sunlight and makes the skin smooth and delicate. A paste of papaya seeds is applied in skin diseases like those caused by ringworm. The black seeds of the papaya are highly beneficial in the treatment of cirrhosis of the liver caused by alcoholism, malnutrition, etc. A tablespoonful of its juice, combined with a hint of fresh lime juice, should be consumed once or twice daily for a month. The fresh juice of raw papaya mixed with honey can be applied over inflamed tonsils, for diphtheria and other throat disorders. It dissolves the membrane and prevents infection from spreading.

Answer the following questions by selecting the most appropriate options from the ones given below:

(a) One of the most important virtues of pepsin is that:

- (i) it is found in papaya.
- (ii) it can digest large quantities of protein.
- (iii) it cures constipation.
- (iv) it can treat a damaged liver.

(b) Intestinal irritation can be overcome by:

- (i) eating ripe papaya salad.
- (ii) drinking papaya juice.

- (iii) eating raw papaya.
- (iv) chewing the seeds of the fruit.

(c) Throat disorders can be cured if:

- (i) one applies honey and the juice of a raw papaya on it.
- (ii) one drinks the juice of a raw papaya.
- (iii) one eats ripe papaya mixed with honey.
- (iv) one drinks the juice of ripe papaya with honey.

(d) 'The juice can be used as a cosmetic' means:

- (i) the juice has medicinal properties.
- (ii) the juice can be used to rectify physical defects.
- (iii) the juice can be used to treat internal diseases.
- (iv) the juice can be used to make the skin look more

attractive **(e) The fact that papaya is a versatile fruit is evident from:**

- (i) the fact that it can be drunk as a milkshake.
- (ii) the fact that it can be eaten as a salad, cooked, boiled or just drunk.
- (iii) the fact that its seeds can be applied on the skin.
- (iv) the fact that it can be eaten, drunk and also used externally.

Q3. Read the given poem carefully:

The Leader

Patient and steady with all he must bear,
Ready to meet every challenge with care,
Easy in manner, yet solid as steel,
Strong in his faith, refreshingly real,
Isn't afraid to propose what is bold,
Doesn't conform to the usual mould,
Eyes that have foresight, for
hindsight won't do, Never backs
down when he sees what is
true, Tells it all straight, and
means it all too.

Going forward and knowing he's right,
Even when doubted for why he would fight,
Over and over he makes his case clear
Reaching to touch the ones who won't hear.
Growing in strength, he won't be unnerved,
Ever assuring he'll stand by his word.
Wanting the world to join his
firm stand, Bracing for war,

but praying for peace, Using
his power so evil will cease:

So much a leader and worthy of trust,
Here stands a man who will do what he must.

-Anonymous

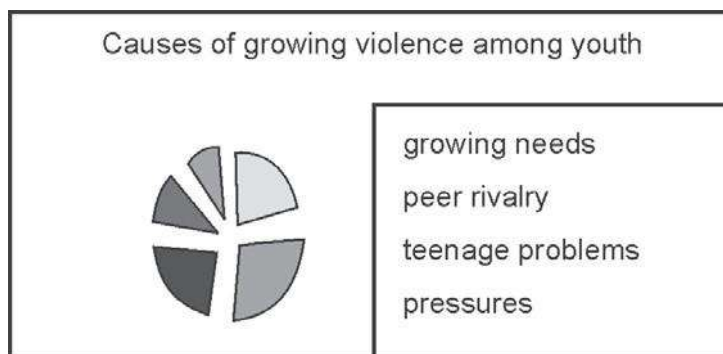
On the basis of your reading of the above poem, answer the following questions by choosing the correct option from those given below:

1. **This poem is about**
 - a. the qualities a leader should possess
 - b. a person who has been a good leader
 - c. what leaders used to be like
 - d. a present day leader
2. **'Doesn't conform to the usual mould' suggests the person being described**
 - a. doesn't look like others
 - b. has qualities that are different
 - c. doesn't mix up with people
 - d. breaks rules laid down by society
3. **The leader would fight war bravely,**
 - a. because he wants to prove his valour
 - b. because he wants to kill his enemy

- c. and turn out victorious
 - d. but want peace
4. **'Using his power so evil will cease':. Here 'cease' means.....**
- a. begin
 - b. become strong
 - c. come to an end
 - d. rule over everyone
5. **A true leader is a man who possesses.....**
- a. physical strength and daredevilry
 - b. courage and conviction
 - c. religious beliefs and faith
 - d. strength and faith

SECTION B (WRITING)

Q4. Rising violence among youth is a cause for concern. A recent survey listed the reasons for this trend. Study the following graph showing causes for the growing violence against others and against self. Write a paragraph based on the available data in 80-100 words.



growing
needs |
peer
rivalry |
teenage
problems
|
pressures

Q5. Manisha Jaiswal is a 15-year-old with an 8-year-old brother, Prabhat. Her mother, who really pampers Prabhat, insists Manisha take him along wherever she goes. Today, Prabhat accompanied Manisha to her friend, Nidhi's birthday party, and to her embarrassment, misbehaved there. He spilt the cold drink on the sofa and threw a tantrum because he wanted to pull down the balloons.

As Manisha, using ideas from the Unit 'Childhood' of your Main Course Book and your own ideas, write a the diary entry recalling the events at the birthday party.

SECTION C (GRAMMAR)

Q6. In the passage given below, some words are missing. Choose the correct word from the given options to complete the passage meaningfully.

The first test tube baby turtle (a) _____ born last month in California. The story began (b) _____ a broken turtle egg (c) _____ on the seashore. Scientists (d) _____ to work carefully bringing up (e) _____ baby turtle which has now (f) _____. this winter the turtle (g). _____ be returned (h) _____ the sea.

(a) was born (ii) were born (iii) is born (iv) are born

(b) where (ii) which (iii) when (iv) who

(c) (i) is find (ii) was found (iii) are finding (iv) found

(d) get (ii) are getting (iii) gets (iv) have

- (i) got
 (e) a (ii) an (iii) are (iv) the
 (i) have (ii) is grown (iii) grown (iv) are
 (f) (i) grown grown grown grown
 (g) might (ii) could (iii) must (iv) would
 (i)
 (h) to (ii) at (iii) in (iv) into

Q7. Using these notes complete the paragraph describing the famous Indian author R.K.

Narayan by choosing from the given options.

R. K. Narayan

I Birth-October 10, 1906,

Chennai I Occupation-

novelist, short-story

writer I Father-

headmaster

I Brother-famous

cartoonist, R.K. Laxman I

Married-Rajam in 1939 I

Notable work(s)-Swami

and Friends I Died-May 13,

2001 (aged 94)

The famous novelist and short-story writer R.K. Narayan (a)
..... His father (b)
..... His brother (c)
..... R.K. Laxman. In 1939 he
married Rajam. One of (d)
..... Swami and Friends.
He died on May 13, 2001 at the ripe age of ninety four.

- (a) (i) was born in Chennai on October 10, 1906
(ii) born at Chennai on October 10, 1906
(iii) were born in Chennai on October 10, 1906
(iv) was born at Chennai in October 10, 1906
- (b) (i) was a Headmaster (ii) was Headmaster
(iii) was the Headmaster (iv) is a Headmaster
- (c) (i) is a famous cartoonist (ii) is the famous cartoonist
(iii) was the famous cartoonist (iv) was famous cartoonist
- (d) (i) his notable work is (ii) his notable works are
(iii) his notable works is (iv) his notable work is

Q8.Look at the words and phrases below. Rearrange them to form meaningful sentences as shown.

streets /during/ can see/ slogans/ elections,/ supporters/
political parties/ the/ shouting /of/ in / we.

During elections, we can see supporters of political parties shouting slogans in the streets. a. on foot/ the/ greeting/ candidates/ walk/ the/ even / people.

b. opportunity/ they/ the/ of / catch/ shaking hands/ anyone/ meet/ they/ with.

c. their problems/ people/ their/ assure/ that \ they \ will \ supporters.

d. to exercise/ votes / they/ candidates/ urge/them/ their/ in favour of their.

Q9. Read the conversation given below and complete the following passage by choosing the correct option.

Detective: What were you doing yesterday between 10-10.30 pm?

Bharat : I was walking my dog in the park.

Detective: Did you meet anyone in the park?

Bharat : I saw two men sitting on a bench.

The detective asked Bharat (a) _____ . Manoj replied

that (b) _____ .

The detective then asked Bharat (c) _____ to

which Bharat replied that (d) _____

_____ .

Q10.The following passage has not been edited. There is one error in each line. Write the incorrect word and the correction against the correct blank number in your answer sheet. The first one has been done for you as an example. Incorrect Correct

The passenger were waiting at			e.g.
passenger	passengers		
the station when five	(a)	_____	
policemen rushing		_____	
into difference	(b)	_____	
compartments of a		_____	
train. After sometimes	(c)	_____	
one of them		_____	
comes out with two	(d)	_____	
young men		_____	
and soon another	(e)	_____	
policeman joined her.		_____	
The men which had	(f)	_____	
been arrested		_____	
was been caught for a	(g)	_____	
theft.		_____	
They had stealed two	(h)	_____	
cars		_____	

SECTION - D (LITERATURE)

Q11. A. Complete your notebook with proper index

B. Practice handwriting daily 1 page

C. Write and practice grammar (Subject verb Agreement, modals, determiners, Tenses,etc)

- . **D.** Learn and write all the poems and stories from your textbook (**Beehive and Moments**)

PM SHRI KENDRIYA VIDYALAYA SEONI

MODEL QUESTION PAPER

SUBJECT: SOCIAL SCIENCE

TIME: 3 HOURS

CLASS-IX

M.M. 80

सामान्य निर्देश-

- (i) इस प्रश्न पत्र में कुल 26 प्रश्न हैं। सभी प्रश्न अनिवार्य हैं।
- (ii) प्रत्येक प्रश्न के अंक सामने दिए गए हैं।
- (iii) प्रश्न संख्या 1 से 7 तक अति लघु उत्तरीय प्रश्न हैं। प्रत्येक प्रश्न 1 अंक का है।
- (iv) प्रश्न संख्या 8 से 18 तक प्रत्येक प्रश्न 3 अंक का है।
- (v) प्रश्न संख्या 19 से 25 तक प्रत्येक प्रश्न 5 अंक का है।
- (vi) प्रश्न संख्या 26 मानचित्र सम्बंधित प्रश्न है। (भूगोल 2 अंक, इतिहास 3 अंक)
- (vii) भरे हुए मानचित्र को अपनी उत्तर पुस्तिका के अंदर संलग्न कीजिए।

General Instruction:

- (i) The question paper has 26 question in all. All question are compulsory.
- (ii) Marks for each question are indicated against the questions.
- (iii) Question from serial number 1 to 7 are very short answer question. Each question carries 1 mark.
- (iv) Question from serial number 8 to 18 are 3 marks questions.
- (v) Question from serial number 19 to 25 are 5 marks questions.
- (vi) Question number 26 is map question (Geography-2 marks and history- 3marks)
- (vii) Attach the filled map inside your answer-book

1. 1865 में कौनसा आधिनियम पारित हुआ था

Which act was passed in 1865?

1

2. नपोलियन बोनापार्ट ने स्वयं को किस वर्ष फ्रांस का सम्राट नियुक्त किया था

In which year Napoleon Bonaparte crowned himself as Emperor of France? 1

3. विश्व में सर्वाधिक वर्षा किस क्षेत्र में होती है

- Which area receives the highest rainfall in the World? 1
4. सांभर झील किस राज्य में स्थित है
Sambhar Lake is situated in which state? 1
5. आम चुनाव क्या हैं
What is General Election? 1
6. जनता का सदन किसे कहते हैं ?
What is called People House ? 1
7. राष्ट्रीय ग्रामीण रोजगार गारंटी अधिनियम(नरेगा) कब पारित किया गया था ?
When was the National Rural Employment Guarantee Act (NREGA) passed ? 1
8. इस बारे में चर्चा कीजिए की 1930 तक आते आते जर्मनी में नात्सीवाद को लोकप्रियता क्यों मिलने लगी ?
Discuss why Nazims become popular in Germany by 1930? 3
9. बस्तर और जावा के ओपनिवेशिक वन प्रबंधन में क्या समानताएं हैं ?
What are the similarities between colonial management of the forest in Bastar and in Java? 3
10. युद्ध के कारण जंगल किस प्रकार प्रभावित होते हैं
Why are forests affected by War? 3
11. लोकतांत्रिक देश में संविधान की आवश्यकता क्यों पड़ती हैं
Why does a democratic country need constitution? 3
12. भारत के प्रधान मंत्री की शक्ति एवं कार्य का उल्लेख कीजिये
Describe the powers and functions of the Prime Minister of India?
- 13 मानव पूंजी निर्माण में शिक्षा की क्या भूमिका हैं 3
What is the role of education in human capital formation?
14. भारत में गरीबी रेखा निर्धारण कैसे होता है उल्लेख कीजिए | 3
Describe how the poverty line is estimated in India.
15. नरेगा की तीन प्रमुख विशेषताओं का उल्लेख कीजिए
Describe the three main features of NREGA . 3
16. भारत वनस्पति जगत तथा प्राणी जगत की धरोहर में धनी क्यों है ?

- Why has India a rich heritage of flora and fauna ? 3
17. भारत में मानसूनी प्रकार की जलवायु क्यों है ?
- Why does India have a monsoon type of climate ? 3
18. जल विभाजक क्या है ? एक उदाहरण दीजिए ।
- What is meant by a water divide ? Give an example 3
19. उन जनवादी अधिकारों की सूची बनाएं जो आज हमें मिले हुए हैं और जिनका उदगम फ्रांसीसी क्रान्ति में है ।
- Draw up a list of democratic rights we enjoy today whose origin could be traced to the French Revolution. 5
20. भारत के प्रमुख भौगोलिक वितरण के नाम बताओ .कोई तीन भौगोलिक वितरण की एक-एक विशेषता लिखो ।
- Name the major physiographic division of India. Write one feature each of any three division. 5
21. भारत में विभिन्न प्रकार की पाई जाने वाली वनस्पति के नाम बताएं और अधिक ऊंचाई पर पाई जाने वाली वनस्पति का ब्यौरा दीजिए ।
- Name different types of vegetation found in India and describe the vegetation of high altitudes. 5
22. क्या सिंचित क्षेत्र को बढ़ाना महत्त्वपूर्ण है ? क्यों ?
- Is it important to increase the area under irrigation ? Why ? 5
23. बेरोज़गारी का क्या आशय है ? प्रछन्न और मौसमी बेरोजगारी में क्या अंतर है ?
- What is meant by unemployment ? What is the difference between disguised unemployment and seasonal unemployment ? 5
24. भारतीय संसद की शक्तियों वर्णन कीजिए ।
- Explain the powers of Indian Parliament. 5
25. लोकतन्त्रात्मक सरकार अन्य प्रकार सरकार से कैसे अच्छी है ?
- How is democracy better than other form of Government ? 5
26. (अ) भारत के राजनैतिक मानचित्र में निम्न को दर्शाए 5
- (i) कान्हा
- (ii) चिल्का झील
- (ब) विश्व के राजनैतिक मानचित्र में निम्न को दर्शाए
- (iii) इंग्लैंड

(iv) फ़्रांस

(v) अमेरिका

(a) Show the following on the outline political map of India

(i) Kanha

(ii) Chilka lake

(b) Show the following on the outline political map of India

(iii) England

(iv) France

(v) America

PM SHRI KENDRIAY VIDYALAYA SEONI

SAMPLE PAPER

Class 09 - Mathematics

Time Allowed: 3 hours

Maximum Marks: 80

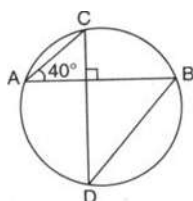
General Instructions:

Read the following instructions carefully and follow them:

1. This question paper contains 38 questions.
2. This Question Paper is divided into 5 Sections A, B, C, D and E.
3. In Section A, Questions no. 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, Questions no. 21-25 are very short answer (VSA) type questions, carrying 02 marks each.
5. In Section C, Questions no. 26-31 are short answer (SA) type questions, carrying 03 marks each.
6. In Section D, Questions no. 32-35 are long answer (LA) type questions, carrying 05 marks each.
7. In Section E, Questions no. 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. All Questions are compulsory. 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.
10. Take $\pi = 22/7$ wherever required if not stated.
11. Use of calculators is not allowed.

Section A

1. If the x co-ordinate of a point is zero, then this point always lies: [1]
 - a) in quadrant IV
 - b) in quadrant III
 - c) on y-axis
 - d) on x-axis
2. The perimeter of a triangle is 300 m and its sides are in the ratio 3 : 5 : 7. Find its area. [1]
 - a) $1800\sqrt{3} \text{ m}^2$
 - b) 4500 m^2
 - c) 2500 m^2
 - d) $1500\sqrt{3} \text{ m}^2$
3. Two chords AB and CD intersect at right angles. If $\angle BAC = 40^\circ$, then $\angle ABD$ is equal to [1]



- a) 60°
- b) 50°

c) 45°

d) 55°

4. M, N and P are the mid-points of AB, AC and BC res. If $MN = 3$ cm, $NP = 3.5$ cm and $MP = 2.5$ cm, calculate BC, AB and AC [1]



a) 2cm, 3cm, 11cm

b) 5cm, 6cm, 7cm

c) 5cm, 6cm, 8cm

d) 9cm, 8cm, 11cm

5. If $\sqrt{5^n} = 125$, then $5^{\sqrt[64]{n}}$ = [1]

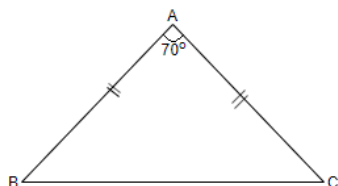
a) $\frac{1}{5}$

b) 25

c) $\frac{1}{125}$

d) 625

6. In the adjoining figure, $AB = AC$ and $\angle A = 70^\circ$, then $\angle C$ is [1]



a) 110°

b) 40°

c) 70°

d) 55°

7. For the equation $5x - 7y = 35$, if $y = 5$, then the value of 'x' is [1]

a) 12

b) -12

c) -14

d) 14

8. The value of 'a' for which $(x + a)$ is a factor of the polynomial $x^3 + ax^2 - 2x + a + 6$ is [1]

a) 0

b) 1

c) 2

d) -2

9. 225 can be expressed as [1]

a) 5×3^2

b) $5^3 \times 3$

c) $5^2 \times 3$

d) $5^2 \times 3^2$

10. In $\triangle ABC$, E is the mid-point of median AD such that BE produced meets AC at F. If $AC = 10.5$ cm, then $AF =$ [1]

a) 2.5 cm

b) 5 cm

c) 3 cm

d) 3.5 cm

11. The rationalisation factor of $2 + \sqrt{3}$, is [1]

a) $\sqrt{2} - 3$

b) $2 - \sqrt{3}$

c) $\sqrt{3} - 2$

d) $\sqrt{2} + 3$

12. The linear equation $3x - 5y = 15$ has [1]

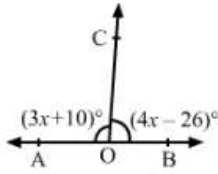
a) no solution

b) infinitely many solutions

c) a unique solution

d) two solutions

13. In the given figure, AOB is a straight line. If $\angle AOC = (3x + 10)^\circ$ and $\angle BOC = (4x - 26)^\circ$. then $\angle BOC = ?$ [1]



a) 76°

b) 86°

c) 106°

d) 96°

14. After simplification, $\frac{13^{1/5}}{13^{1/3}}$ is [1]

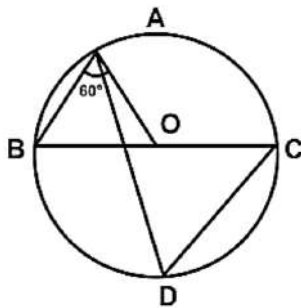
a) $13^{8/15}$

b) $13^{2/15}$

c) $13^{-2/15}$

d) $13^{1/3}$

15. In fig. BC is a diameter of the circle and $\angle BAO = 60^\circ$. Then $\angle ADC$ is equal to: [1]



a) 120°

b) 30°

c) 45°

d) 60°

16. The point which lies on x-axis at a distance of 3 units in the positive direction of x-axis is [1]

a) (0, -3)

b) (0, 3)

c) (3, 0)

d) (-3, 0)

17. The pair of linear equations $5x + 4y = 20$ and $10x + 8y = 16$ has: [1]

a) infinite number of solutions

b) a unique solution

c) two solutions

d) no solution

18. The zeros of the polynomial $p(x) = 3x^2 - 1$ are [1]

a) $\frac{1}{3}$ and 3

b) $\frac{1}{\sqrt{3}}$ and $\frac{-1}{\sqrt{3}}$

c) $\frac{-1}{\sqrt{3}}$ and $\sqrt{3}$

d) $\frac{1}{\sqrt{3}}$ and $\sqrt{3}$

19. **Assertion (A):** In $\triangle ABC$, E and F are the midpoints of AC and AB respectively. The altitude AP at BC intersects FE at Q. Then, $AQ = QP$. [1]

Reason (R): Q is the midpoint of AP.

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.

20. **Assertion (A):** $17^2 \cdot 17^6 = 17^3$

[1]

Reason (R): If $a > 0$ be a real number and p and q be rational numbers. Then $a^p \cdot a^q = a^{p+q}$.

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.

Section B

21. Solve the equation $u - 5 = 15$ and state the axiom that you use here.

[2]

22. Why is axiom 5, in the list of Euclid's axioms, considered as a 'universal truth'?

[2]

23. Which of the following points lie on the y-axis?

[2]

A(1, 1), B(3, 0), C(0, 3), D(0, 0), E(-5, 0), F(0, -1), G(9, 0), H(0, -8).

24. Simplify $\sqrt[4]{\sqrt[3]{x^2}}$ and express the result in the exponential form of x .

[2]

OR

Solve the equation: $\sqrt{\frac{a}{b}} = \left(\frac{b}{a}\right)^{1-2x}$, where a, b are distinct positive primes.

25. A cloth having an area of 165 m^2 is shaped into the form of a conical tent of radius 5 m. Find the volume of the cone.

[2]

OR

The curved surface area of a sphere is 5544 cm^2 . Find its volume.

Section C

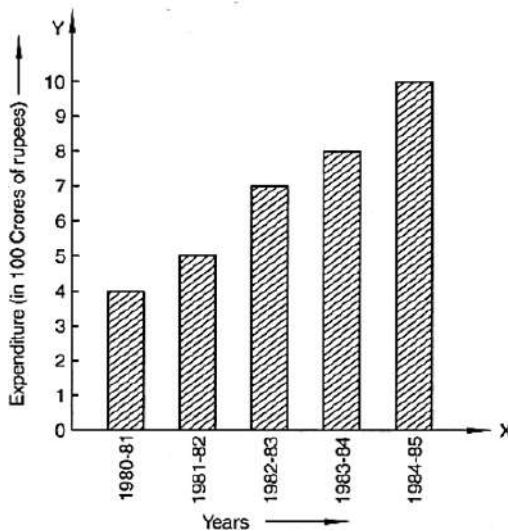
26. Find the value to three places of decimal. It is given that $\sqrt{2} = 1.414$, $\sqrt{3} = 1.732$, $\sqrt{5} = 2.236$ and $\sqrt{10} = 3.162$

[3]

$$\frac{\sqrt{10} + \sqrt{15}}{\sqrt{2}}$$

27. Read the bar graph given in Figure and answer the following questions

[3]



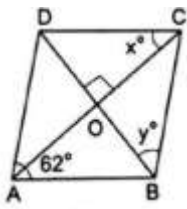
i. What information is given by the bar graph?

ii. What was the expenditure on health and family planning in the year 1982-83?

iii. In which year is the increase in expenditure maximum over the expenditure in previous year? What is the maximum increase?

28. In figures given below, ABCD is a rhombus. Find the value of x and y :

[3]



29. Find the solution of the linear equation $x + 2y = 8$ which represents a point on [3]
- The x-axis
 - The y-axis

30. Draw a histogram of the following distribution: [3]

Height (in cm)	Number of students
150 - 153	7
153 - 156	8
156 - 159	14
159 - 162	10
162 - 165	6
165 - 168	5

OR

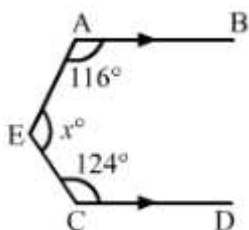
The following data on the number of girls (to the nearest ten) per thousand boys in different sections of Indian society is given below.

Section	Number of girls per thousand boys
Scheduled Caste (SC)	940
Scheduled Tribe (ST)	970
Non SC/ST	920
Backward districts	950
Non-backward districts	920
Rural	930
Urban	910

- Represent the information above by a bar graph.
 - In the classroom discuss what conclusion can be arrived at from the graph.
31. Factorise: $4x^2 + 20x + 25$ [3]

Section D

32. In each of the figures given below, $AB \parallel CD$. Find the value of x° in each other case. [5]



OR

Prove that the bisectors of a pair of vertically opposite angles are in the same straight line.

33. How many meters of cloth, 5 m wide, will be required to make a conical tent, the radius of whose base is 7 m and height is 24 m? [5]
34. Find the area of the triangle whose sides are 42 cm, 34 cm and 20 cm in length. Hence, find the height corresponding to the longest side. [5]

OR

The perimeter of a triangular field is 420 m and its sides are in the ratio 6 : 7 : 8. Find the area of the triangular field.

35. If $x = 0$ and $x = -1$ are the zeros of the polynomial $f(x) = 2x^3 - 3x^2 + ax + b$, find the value of a and b. [5]

Section E

36. **Read the following text carefully and answer the questions that follow:** [4]

Peter, Kevin James, Reeta and Veena were students of Class 9th B at Govt Sr Sec School, Sector 5, Gurgaon.

Once the teacher told **Peter to think a number x and to Kevin to think another number y** so that the difference of the numbers is 10 ($x > y$).

Now the teacher asked James to add double of Peter's number and that three times of Kevin's number, the total was found 120.

Reeta just entered in the class, she did not know any number.

The teacher said Reeta to form the 1st equation with two variables x and y.

Now Veena just entered the class so the teacher told her to form 2nd equation with two variables x and y.

Now teacher Told Reeta to find the values of x and y. Peter and kelvin were told to verify the numbers x and y.



- i. What are the equation formed by Reeta and Veena? (1)
- ii. What was the equation formed by Veena? (1)
- iii. Which number did Peter think? (2)

OR

Which number did Kelvin think? (2)

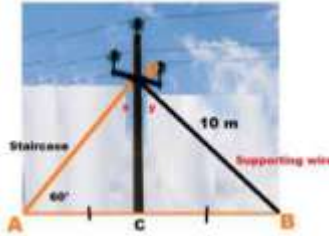
37. **Read the following text carefully and answer the questions that follow:** [4]

As shown In the village of Surya there was a big pole PC. This pole was tied with a strong wire of 10 m length.

Once there was a big spark on this pole, thus wires got damaged very badly. Any small fault was usually repaired with the help of a rope which normal board electricians were carrying on bicycles.

This time electricians need a staircase of 10 m so that it can reach at point P on the pole and this should make

60° with line AC.



- i. Show that $\triangle APC$ and $\triangle BPC$ are congruent. (1)
- ii. Find the value of $\angle x$. (1)
- iii. Find the value of $\angle y$. (2)

OR

What is the value of $\angle PBC$? (2)

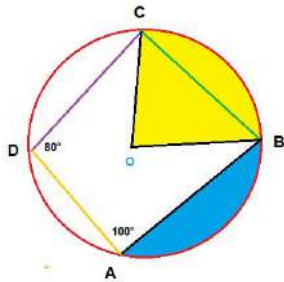
38. **Read the following text carefully and answer the questions that follow:**

[4]

There was a circular park in Defence colony at Delhi. For fencing purpose poles A, B, C and D were installed at the circumference of the park.

Ram tied wires From A to B, B to C and C to D, and he managed to measure the $\angle A = 100^\circ$ and $\angle D = 80^\circ$

Point O in the middle of the park is the center of the circle.



- i. Name the quadrilateral ABCD. (1)
- ii. What is the value of $\angle C$? (1)
- iii. What is the value of $\angle B$. (2)

OR

Write any three properties of cyclic quadrilateral? (2)

PRACTICE PAPER 09 (2024- 25)
CHAPTER 09 STRAIGHT LINES

SUBJECT: MATHEMATICS
CLASS : XI

MAX. MARKS : 40
DURATION : 1½ hrs

General Instructions:

- (i). All questions are compulsory.
 - (ii). This question paper contains 20 questions divided into five Sections A, B, C, D and E.
 - (iii). **Section A** comprises of 10 MCQs of 1 mark each. **Section B** comprises of 4 questions of 2 marks each. **Section C** comprises of 3 questions of 3 marks each. **Section D** comprises of 1 question of 5 marks each and **Section E** comprises of 2 Case Study Based Questions of 4 marks each.
 - (iv). There is no overall choice.
 - (v). Use of Calculators is not permitted
-

SECTION – A

Questions 1 to 10 carry 1 mark each.

1. The value of y will be, so that the line through $(3, y)$ and $(2, 7)$ is parallel to the line through $(-1, 4)$ and $(0, 6)$.
(a) 7 (b) 8 (c) 9 (d) 10
2. The equation of the line passing through the point $(1, 2)$ and perpendicular to the line $x + y + 1 = 0$ is
(a) $y - x + 1 = 0$ (b) $y - x - 1 = 0$ (c) $y - x + 2 = 0$ (d) $y - x - 2 = 0$
3. The equation of line, which passes through point $(4, 3)$ and parallel to the line $2x - 3y = 7$ is
(a) $2x - 3y + 1 = 0$ (b) $2x - 3y - 1 = 0$ (c) $2x + 3y + 1 = 0$ (d) $2x + 3y - 1 = 0$
4. The distance of the point $(3, -5)$ from the line $3x - 4y - 26 = 0$ is
(a) $3/7$ (b) $2/5$ (c) $7/5$ (d) $3/5$
5. The distance between the parallel lines $3x - 4y + 7 = 0$ and $3x - 4y + 5 = 0$, is
(a) $3/7$ (b) $2/5$ (c) $7/5$ (d) $3/5$
6. The equation of line whose intercepts on the axes of x and y are -2 and 3 respectively is
(a) $3x - 2y = 6$ (b) $3x - 2y + 6 = 0$ (c) $3x + 2y = 6$ (d) $3x + 2y = -6$
7. The new coordinates of point $(3, -5)$, if origin is shifted to the point $(-3, -2)$ are
(a) $(6, 3)$ (b) $(6, -3)$ (c) $(-6, 3)$ (d) $(-6, -3)$
8. The angle between the X -axis and the line joining the points $(3, -1)$ and $(4, -2)$ is
(a) 45° (b) 135° (c) 90° (d) 180°

For Q9 and Q10, a statement of assertion (A) is followed by a statement of reason (R). Choose the correct answer out of the following choices.

- (a) Both A and R are true and R is the correct explanation of A.
 - (b) Both A and R are true but R is not the correct explanation of A.
 - (c) A is true but R is false.
 - (d) A is false but R is true.
9. **Assertion (A):** The slope of the line $x + 7y = 0$ is $1/7$ and y -intercept is 0.
Reason (R): The slope of the line $6x + 3y - 5 = 0$ is -2 and y -intercept is $5/3$.
10. **Assertion (A):** Slope of line $3x - 4y + 10 = 0$ is $3/4$.
Reason (R): x -intercept and y -intercept of $3x - 4y + 10 = 0$ respectively are $-10/3$ and $5/2$.
-
-

SECTION – B

Questions 11 to 14 carry 2 marks each.

11. If the lines $2x + y - 3 = 0$, $5x + ky - 3 = 0$ and $3x - y - 2 = 0$ are concurrent, find the value of k .
12. Find the equation of lines passing through $(1, 2)$ and making angle 30° with y -axis.
13. Line through the points $(-2, 6)$ and $(4, 8)$ is perpendicular to the line through the points $(8, 12)$ and $(x, 24)$, find the value of x .
14. Find the equation of the straight line passing through the point $(6, 2)$ and having slope -3 .

SECTION – C

Questions 15 to 17 carry 3 marks each.

15. The vertices of the triangle are $A(2, 3)$, $B(4, -1)$ and $C(1, 2)$. Find the length and equation of the perpendicular drawn from the point A on side BC .
16. If $P(a, b)$ is the mid-point of a line segment between axes.
Show that equation of the line is $\frac{x}{a} + \frac{y}{b} = 2$.
17. Find the equations of the altitudes of the triangle whose vertices are $A(7, -1)$, $B(-2, 8)$ and $C(1, 2)$.

SECTION – D

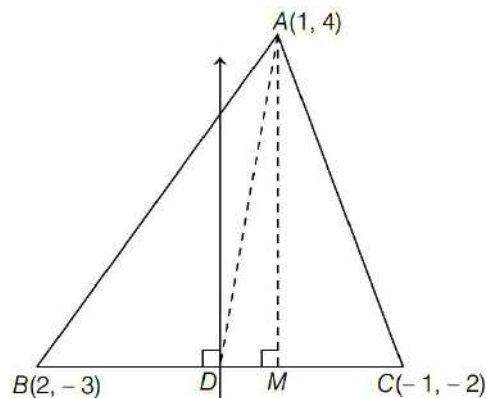
Questions 18 carry 5 marks.

18. Find the equations of the lines which pass through the point $(4, 5)$ and make equal angles with the lines $5x - 12y + 6 = 0$ and $3x = 4y + 7$.

SECTION – E (Case Study Based Questions)

Questions 19 to 20 carry 4 marks each.

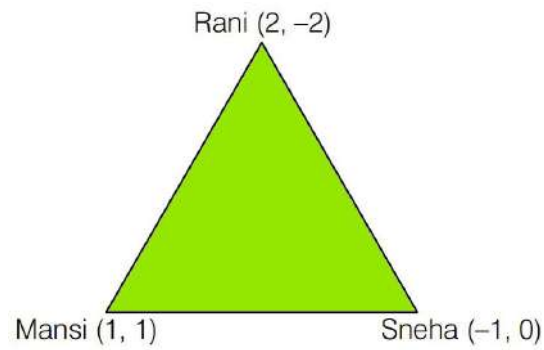
19. One day the mathematics teacher drew a triangle $\triangle ABC$ while revising straight lines. He marked vertices $A(1, 4)$, $B(2, -3)$ and $C(-1, -2)$ as shown in the given below figure. AD is the median and AM is the altitude through A .



Based on the above information answer the following questions.

- (i) Find the slope of BC . (1)
 - (ii) Find the equation of median through A . (1)
 - (iii) Find the equation of the altitude through A . (1)
 - (iv) Find the equation of right bisector of side BC . (1)
-
-

20. One triangular shaped pond is there in a park. Three friends Rani, Mansi, Sneha are sitting at the corners of the triangular park. They are studying in Class XI in an International. Rani marked her position as $(2, -2)$, Mansi marked as $(1, 1)$ and Sneha marked her position as $(-1, 0)$ as shown in figure given below.



Based on the above information answer the following questions.

- (i) Find the equation of lines formed by Rani and Mansi. (1)
 - (ii) Find the Slope of equation of line formed by Rani and Sneha. (1)
 - (iii) Find the equation of median of lines through Rani. (1)
 - (iv) Find the equation of altitude through Mansi. (1)
-
-
-

शीतकालीन अवकाश गृहकार्य
कक्षा - नवम् IX

MIRAJ
Page No.
Date

विषय - संस्कृत

प्रश्न 1. भ्रान्तो बालः, पर्यावरणम्, वाऽऽमनः, पाठस्वरूपम्
पाठस्य स्वकीया अभ्यासाः, हृत्वा लिखन्तु।

प्रश्न 2. सुक्तिमौक्तिरुक्म पाठस्य प्रथमम् पंक्त्याः
सुक्तिनाम् अनुवादं लिखन्तु।

प्रश्न 3. गरायोः शौर्यम् पाठस्य द्वौ (दो) श्लोकान्
(लिखित्वा) प्रश्न निर्माणं कृत्वा उत्तराणि लिखन्तु।

प्रश्न 4. भवत्, गुणिन्, नदी, लता, कवि, युष्मद्, शब्दान्
शब्द रूपाणि लिखन्तु।

प्रश्न 5. प्रत्ययाः - क्त्वा, तुम्, शान्त, वत्
उपसर्गाः - अप, सम्, अव, निस, अण
आत्प्रधानि - अधुना, कदा, यदि, एकदा, यथा
प्रयोगं कृत्वा 10-10 उदाहरणानि लिखन्तु।

विषय शिक्षक

विद्यार्थी
20.12.24

WINTER BREAK HOMEWORK

SUBJECT -SCIENCE CLASS -IX

1. Classify each of the following as a physical or a chemical change. Give

reasons. i. Drying of a shirt in the sun.

ii. Rising of hot air over a radiator.

iii. Burning of kerosene in a lantern.

iv. Change in the colour of black tea on adding lemon juice to it.

v. Churning of milk cream to get butter.

2. Write the one main function of at least 10 cell components.

3. Differentiate between diffusion and osmosis. What is its importance?

4. Differentiate between

i. Cell wall and cell membrane.

ii. Nuclear region of a bacterial cell and nuclear region of an animal cell.

iii. Prokaryotic cell & eukaryotic cell.

5. (i) A steel needle sinks in water but a steel ship floats. Explain, how?

(ii.) Why do you prefer a broad and thick handle of your suitcase?

6. Differentiate between sclerenchyma and parenchyma tissues. Draw a well-labeled diagram.

7.(i) A cube of side 5 cm is immersed in water and then in saturated salt solution. In which case, will it experience a greater buoyant force? If each side of the cube is reduced to 4 cm and then immersed in water, what will be the effect on the buoyant force experienced by the cube as compared to the first case for water. Give the reason for each case.

(ii) A ball weight 4 kg of density 4000 kg m^{-3} is completely immersed in water of density 103 kg m^{-3} . Find the force of buoyancy on it. (Given $g = 10 \text{ ms}^{-2}$.)

8. (i) Write the molecular formulae for the following compounds:

(a) Copper (II) bromide (b) Aluminium (III) nitrate

(c) Calcium (II) phosphate (d) Iron (III) sulphide

(e) Mercury (II) chloride

(ii) Calculate the molecular mass of the following:

a. H_2O b. NaCl c. HNO_3 d CaCl_2

Q9. Give the formulae of the compounds formed from the following sets of elements:

(a) Calcium and fluorine (b) Hydrogen and sulphur

(c) Nitrogen and hydrogen (d) Carbon and chlorine

(e) Sodium and oxygen (f) Carbon and oxygen

Q13 What is a cation and anion ? Give two-two examples each of cation and anion.

Q14 If number of electrons in an atom is 8 and the number of protons is also 8, then

a. What is the atomic number of the atom?

b. What is the charge on the atom?

Q15. (a) Derive an expression for calculating the kinetic energy of an object of mass m moving with velocity v ?

(b) Derive the formula for calculating potential energy for an object of mass m kept at a height

h. Q16. Find out the valency of the atoms represented by the Fig

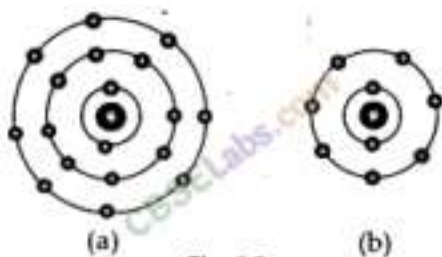


Fig. 4.3

Q17. What information do you get from the Fig. 4.4 about the atomic number, mass number and valency of atoms X, Y and Z? Give your answer in a tabular form.

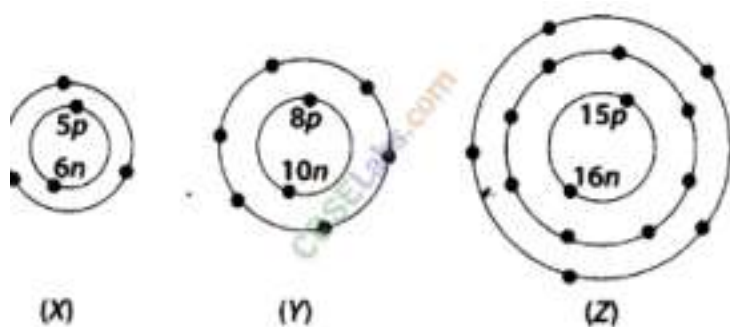


Fig. 4.4

Q18. Avinash can run with a speed of 8 m s^{-1} against the frictional force of 10 N , and Kapil can move with a speed of 3 ms^{-1} against the frictional force of 25 N . Who is more powerful and why?

Q19. State the number of atoms present in each of the following chemical

species: (a) CO_3^{2-} (b) PQ_4^{3-} (c) P_2O_5 (d) CO

PM SHRI KENDRIYA VIDYALAYA SEONI

Class 9th (SST)

winter holiday homework

1. Subject enrichment file (natural vegetation and wildlife).
2. Map File.
3. Write Notes (Democratic rights).
4. Write (at least 1 page) about all the prime and presidents from India's independence till today.

PM SHRI KENDRIYA VIDYALAYA SEONI

WINTER BREAK HOMEWORK

Class IX

1. Write about Faraday's law of electromagnetic induction and its real-life applications (e.g., in generators).
2. Explain the working principle of a circuit breaker (MCB) and its importance in electrical safety.

Project/Model:

Design a small generator model using a coil, magnet, and battery to demonstrate electromagnetic induction.

पीएम श्री केंद्रीय विद्यालय सिवनी
शीतकालीन अवकाश गृहकार्य-2024

विषय - हिंदी

कक्षा 9

प्रश्न -1. निम्नलिखित विषयों पर लघु कथा लिखिए।

* संगठन में शक्ति

* अनुशासन का महत्व

प्रश्न - 2. निम्नलिखित पत्र लिखिए।

* अपने छोटे भाई को मोबाइल से होने वाले दुष्प्रभाव के संबंध में पत्र।

* अपनी कॉलोनी में हो रही गंदगी के संबंध में नगरपालिका अध्यक्ष को पत्र।

प्रश्न - 3. अर्थ के आधार पर वाक्य भेदों को सोदाहरण लिखकर याद कीजिए।

प्रश्न -4. समास किसे कहते हैं तथा उनके भेदों को सोदाहरण लिखकर याद कीजिए।

प्रश्न - 5. पठित पाठ्यक्रम के प्रश्नोत्तर याद कीजिए

प्रश्न -6. कवि माखनलाल चतुर्वेदी एवं कवयित्री महादेवी वर्मा के A4 पेपर पर चित्र बनाएं तथा जीवन परिचय लिखिए।

