

PRACTICE PAPER
TERM – 2 (2025-26)
CLASS-VIII
SUBJECT- MATHEMATICS

Time: 3 hours

M.M: 80

General instructions

1. This question paper contains 38 questions and 5 printed pages.
2. This Question paper contains - five sections A, B, C, D and E. Each section is compulsory. However, there are internal choices in some questions.
3. Section A has 18 MCQ's and 02 Assertion-Reason based questions of 1 mark each.
4. Section B has 5 Very Short Answer (VSA)-type questions of 2 marks each.
5. Section C has 6 Short Answer (SA)-type questions of 3 marks each.
6. Section D has 4 Long Answer (LA)-type questions of 5 marks each.
7. Section E has 3 source based/case based/passage based/integrated units of assessment of 4 mark each with sub parts.
8. 15 minutes of time has been allotted to read this question paper.

S.No.	Section A (This section comprises multiple choice questions of 1 mark each.)	Marks
1	Area of a square field is 961 sq.cm.Length of each side is A) 29 cm B) 41cm C) 31cm D)39 cm	1
2	The distance of a point A (4,5) from Y axis is _____ A) 4 units B) 5 units C) 1 unit D) 9 units	1
3	If the length of side of a cube is doubled, then the ratio of volumes of new cube and original cube is A) 1:2 B) 2:1 C) 4:1 D) 8:1	1
4	A spinner has five colors on it.The probability it shows green is 0.32. The probability that the color is not green is A) 0.68 B) 0.64 C) 0.53 D) 0.32	1
5	If a transversal intersects two parallel lines, then the sum of the interior angles on the same side of the transversal is: A) 180° B) 270° C) 360° D) 90°	1
6	If Line A is parallel to Line B, and Line B is perpendicular to Line C, then the relationship between Line A and Line C is: A) Line A is perpendicular to Line C B) Line A is parallel to Line C C) Line A and Line C are neither parallel nor perpendicular D) Line A is intersecting Line C	1
7	If M (9,5) and N (4,6) then the value of Ordinate of N - Abscissa of M is _____	1

	A) 3 B) -5 C) -3 D) 1	
8	A card is drawn at random from a well shuffled deck of 52 playing cards. The probability that the card drawn is a diamond is A) $\frac{1}{52}$ B) $\frac{1}{4}$ C) $\frac{1}{2}$ D) $\frac{1}{8}$	1
9	The value of P for which $x^2 - 10x + P$ is exactly divisible by $x - 2$ A) 18. B) 17 C) 16 D) 19	1
10	If $\frac{x+5}{x+3} = \frac{5}{4}$, then the value of $-5x + 16$ is _____ A) -5 B) -9 C) 9 D) 5	1
11	Four angles of a Pentagon are 110° , 165° , 80° and 80° . The fifth angle is _____ A) 110° B) 105° C) 115° D) 80°	1
12	The degree of $x^3 - x^3 - 8x^4$ is A) 3 B) 4 C) 2 D) 1	1
13	The product of $(n+ 3m)$ and $(n+ 3m)$ is: (A) $n^2 + 3m^2$ (B) $n^2 + 9m^2$ (C) $n^2 + 6nm + 9m^2$ (D) $n^2 - 9m^2$	1
14	The value of $(3^{-7} \div 3^{-10}) \times 3^{-5}$ is - (A) 3 (B) $\frac{1}{9}$ (C) 9 (D) 1	1
15	The diagonal AC of a Rhombus ABCD is equal to the side BC, then measure of Angle A will be _____ A) 90° B) 120° C) 240° D) 60°	1
16	A car takes 4 hours to cover a fixed distance when it moves at a speed of 60 km/h. Time taken by the car to cover the same distance at a speed of 80 km/h will be (A) 3 hours (B) 5 hours (C) 6 hours (D) 2 hours	1
17	The factors of $p^4 - 81$ are A) $(p^2 - 9)(p^2 - 9)$ B) $(p^2 + 9)(p+3)(p-3)$ C) $(p^2 - p - 9)(p-9)$ D) $(p^2 + 9)(p^2 + 9)$	1
18	If $\sqrt[3]{m^6} = 4$, then the positive value of 'm' is. (A) 2 (B) 4 (C) 8 (D) 64	1

Q19 -20 are Assertion-Reasoning based questions.

ASSERTION - REASONING QUESTION: Choose one of the following for answering:

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

19	Assertion: If the cost price of an article is half the selling price, the profit percent is 100%. Reason : Discount percent is always calculated on the cost price of the article.	1
20	Assertion (A): $\{(2)^3\}^4 = (2)^{12}$ Reason (R): $(a^m)^n = a^{mn}$	1

Section B

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

21

The following is the frequency distribution table for the ages of students in a school. Answer the following questions:

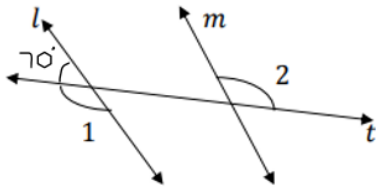
Age (in yrs.)	No. of students
0-5	35
5-10	45
10-15	50
15-20	30

- i) What is the class size of the class intervals?
ii) What is the class mark of the interval 0-5?

2

22

In the figure $l \parallel m$, find the measure of $\angle 1$ and $\angle 2$.



2

23

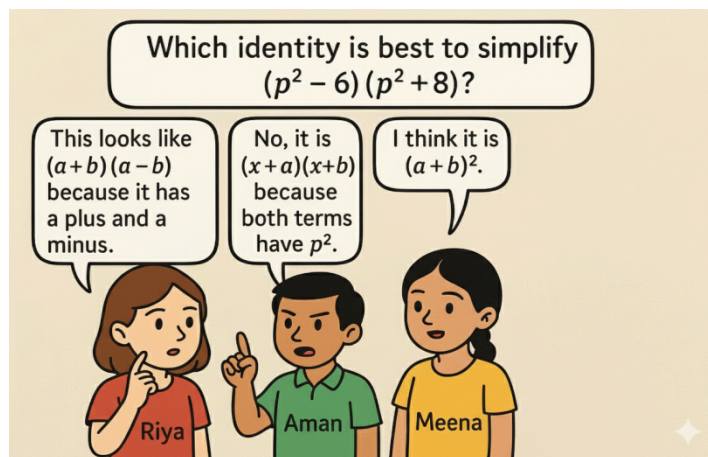
Find the Volume of a cube whose surface area is 150 cm^2 .

OR

The area of a trapezium is 12 sq.m . If its height is 3m , find the sum of its parallel sides.

2

24



- a. Who is right among Riya, Aman and Meena?
b. Evaluate the expression $(p^2 - 6)(p^2 + 8)$ using suitable identity.

2

25

A battery's power reduces to half every hour. If the initial power is 2^6 units, how much power will be left after 3 hours?

OR

Mass of earth is $5.97 \times 10^{24} \text{ kg}$ and mass of moon is $7.35 \times 10^{22} \text{ kg}$. What is the total mass?

2

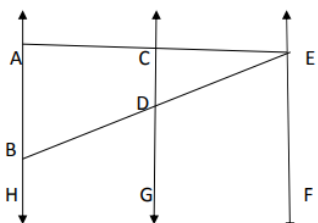
Section C

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

26

If the Diagonals of a Rhombus are 12 cm and 16 cm , then

3



	<p>a) Find the length of each side of Rhombus. b) Find the perimeter of Rhombus.</p> <p style="text-align: center;">OR</p> <p>The Diagonals of a Rhombus are in the ratio 5:12. If its perimeter is 104 cm, then</p> <p>a) find the length of each side of Rhombus b) Find the Diagonals of Rhombus</p>													
27	<p>In 15 days, the earth picks up 1.2×10^4 kg of dust from the atmosphere. In how many days it will pick up 4.8×10^4 kg of dust ?</p> <p style="text-align: center;">OR</p> <p>120 men had food provision for 200 days. After 5 days, 30 men died due to an epidemic. How long will the remaining food last ?</p>	3												
28	<p>The length of a roller is 40 cm and its diameter is 21 cm. It takes 300 complete revolutions to move once over to level the floor of a room. Find the Area of the room in m^2.</p>	3												
29	<p>The following data gives the distribution of daily earnings (in Rs.) of 25 drug stores.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tbody> <tr> <td>Daily earnings (in ₹)</td> <td>400-500</td> <td>450-500</td> <td>500-550</td> <td>550-600</td> <td>600-650</td> </tr> <tr> <td>No. of stores</td> <td>8</td> <td>5</td> <td>7</td> <td>3</td> <td>2</td> </tr> </tbody> </table> <p>Draw a histogram for the above data.</p>	Daily earnings (in ₹)	400-500	450-500	500-550	550-600	600-650	No. of stores	8	5	7	3	2	3
Daily earnings (in ₹)	400-500	450-500	500-550	550-600	600-650									
No. of stores	8	5	7	3	2									
30	<p>On a Cartesian Plane, Draw a square ABCD with the coordinates A (0,1) , B (4,1) , C (4,5). Write the coordinates of its 4th Vertex D and find the Area of the square formed. Also find the coordinates of its point of intersection of the diagonals.</p> <p>For Visually Challenged Answer the following Questions</p> <p>A) What is the distance between the points P (0,2) and Q (0,7). B) What are the coordinates of the origin? C) If a point 5 lies on the Y axis, then what will be its coordinates ?</p>	3												
31	<p>The difference between two perfect cubes is 189. If the cube root of the smaller of the two numbers is 3, find the cube root of the larger number.</p>	3												
<p>Section D (This section comprises of long answer type (LA) of 5 marks each.)</p>														
32	<p>Find the square root of $1\frac{1}{3}$ correct to 2 decimal places.</p> <p style="text-align: center;">OR</p> <p>Find the smallest number to be added to 1780 to make it a perfect square.</p>	5												
33	<p>In the figure AH // CG // EF. Also EA \perp AH. If $\angle BEF=55^\circ$. Find the value of $\angle DBH$, $\angle EDG$ and $\angle CED$.</p> 	5												

34	Renu borrowed from Ratan a certain sum at a certain rate for 2 years of simple interest. She lent this sum at the same rate to Hari for 2 years compound interest. At the end of 2 years she received ₹210 as compound interest, but paid ₹200 only as simple interest. Find the sum and rate of interest.	5
35	<p>Find the difference between the quotient and remainder when $2x^4 + 4x^2 + 4x - x^3 - 7$ is divided by $x - 1$.</p> <p style="text-align: center;">OR</p> <p>Divide $y^3 + 5y^2 + 12y + 9$ by $y + 2$. Find the quotient and remainder. Also check your answer</p>	5

Section E

(This section comprises 3 case study questions of 4 marks each.)

36	<p>During a survey of plastic wastes it was observed that disposable plastic pens and folders constitute a big amount of wastage. To solve this issue a company created eco-friendly pens and folders. A stationery shop named <i>EcoWrite</i> sells eco-friendly notebooks, pens, and folders. To encourage students to use recycled products, the shopkeeper offers discounts on the marked price of the items.</p> <p>The details of some items are given below:</p> <table border="1" data-bbox="175 919 1377 1171"> <thead> <tr> <th>Items</th> <th>Cost price (in ₹)</th> <th>Marked price (in ₹)</th> <th>Discount %</th> </tr> </thead> <tbody> <tr> <td>Notebook</td> <td>40</td> <td>60</td> <td>20%</td> </tr> <tr> <td>Pen</td> <td>12</td> <td>20</td> <td>10%</td> </tr> <tr> <td>Folder</td> <td>80</td> <td>120</td> <td>25%</td> </tr> </tbody> </table> <p>A student buys 3 notebooks, 5 pens, and 2 folders from the shop.</p> <p>Based On the information given above, answer the following questions:</p> <ol style="list-style-type: none"> 1. Find the Selling Price(SP) of one folder after discount . 2. Find the selling price (SP) of three Notebooks after discount . 3. Determine the total profit or loss made by the shopkeeper by selling 5 pens. <p style="text-align: center;">OR</p> <p>Determine the total profit or loss made by the shopkeeper by selling 2 folders.</p>	Items	Cost price (in ₹)	Marked price (in ₹)	Discount %	Notebook	40	60	20%	Pen	12	20	10%	Folder	80	120	25%	4
Items	Cost price (in ₹)	Marked price (in ₹)	Discount %															
Notebook	40	60	20%															
Pen	12	20	10%															
Folder	80	120	25%															
37	<p>A small village faces the problem of water shortage during summers. To store groundwater, the villagers decided to dig a well. The well is dug 20 meters deep and has a diameter of 7 meters.</p> <p>Instead of wasting the dug-out earth, they plan to use it productively by spreading it evenly over a rectangular playground nearby. The playground measures 22 meters in length and 14 meters in breadth.</p> <p>Based on the above situation, answer the following:</p>	4																

	<p>1. Find the volume of the earth dug out from the well.</p> <p>2. Calculate the area of the rectangular plot on which the earth is spread.</p> <p>3. Find the height of the platform formed by spreading the dug-out earth evenly.</p> <p style="text-align: center;">OR</p> <p>If the cost of spreading the earth is ₹25 per cubic metre and fencing the platform is ₹ 38 per metre, find the total cost.</p>	<p>1</p> <p>1</p> <p>2</p>
38	<p>The Delhi-Dehradun Highway is a popular route that connects the capital city of India, New Delhi, to Dehradun in Uttarakhand. The total distance between Delhi and Dehradun is 300 km. Rakesh who lives in Delhi and Suresh who lives in Dehradun are friends and thought of meeting each other during the vacation. Rakesh with his family and Suresh with his family start their cars simultaneously from their town and move towards each other. The speed of Rakesh's car is more than Suresh's car by 7 km/h, the distance between the cars after two hours is 34 km.</p> <div style="text-align: center;">   </div> <p>According to the above situation, Answer the following questions.</p> <p>a) Form the linear equation in one variable according to the above situation.</p> <p>b) What is the speed of Suresh's car?</p> <p>c) Find the distance travelled by Rakesh and Suresh in two hours.</p> <p style="text-align: center;">OR</p> <p>Find the distance between the cars after they had travelled for 1 hour.</p>	4

Note:- Please refer sample paper issued by DAVCAE