

Question Paper Class 8 (Sem 2)

Mathematics

Time: 2 Hours

Max. Marks: 50

I. Choose the correct answer.

(5 × 1 = 5)

1. The SI on ₹ 500 at 10% per annum for 4 years is
 - a. ₹300
 - b. ₹400
 - c. ₹200
 - d. None of these
2. A horse eats 18 kg of corn in 12 days. How much does he eat in 9 days?
 - a. 13 kg
 - b. 13.5 kg
 - c. 12 kg
 - d. None of these
3. The name of 12-sided polygon is
 - a. hexagon
 - b. Nonagon
 - c. Hendecagon
 - d. Dodecagon
4. By Euler's formula, the number of faces of an Octahedron is 8 and number of vertices is 6, then number of edges is _____.
 - a. 12
 - b. 8
 - c. 6
 - d. 14
5. In which quadrant do the points (-6, -4) lie?
 - a. 1st quadrant
 - b. 2nd quadrant
 - c. 3rd quadrant
 - d. 4th quadrant

II. Write the following statements as True or False.

(10 × 1 = 10)

1. A graph which is used to represent the data that changes continuously with time is called a line graph.
2. x-coordinate = Distance of the point from the y-axis.
3. The sample space when two coins are tossed is {HH, HT, TH}.
4. The volume of a cube whose edge is 5 cm is 225 cubic cm.
5. The surface area of a cuboid is equal to the sum of the areas of its six rectangular faces.
6. The area of a trapezium is half the product of its altitude and sum of the parallel sides.
7. A square is a rectangle with all its sides equal.
8. Dodecahedron: It has 4 pentagons meeting at each vertex.
9. In a cyclic quadrilateral, the sum of the opposite angles is 180°.
10. The sum of the exterior angles of a polygon is 180°.

III. Match the following.**(5 × 1 = 5)**

Radius and height of cylinder	Curved surface area of cylinder
1. $r = 7$ cm, $h = 10$ cm	(i) 369.6 sq. cm
2. $r = 1.4$ cm, $h = 2.1$ cm	(ii) 110 sq. cm
3. $r = 2.5$ cm, $h = 7$ cm	(iii) 616 sq. cm
4. $r = 70$ cm, $h = 1.4$ cm	(iv) 440 sq. cm
5. $r = 4.2$ cm, $h = 14$ cm	(v) 18.48 sq. cm

IV. Answer the following.**(5 × 2 = 10)**

- Find the amount on a sum of ₹ 10000 at 12% per annum for 2 years compounded annually.
- Ramya cycles at an average speed of 12 km/hr. It takes her 20 minutes to reach the school. If she wants to reach her school in 15 minutes, what should be her average speed?
- A room is 18 m long, 14 m wide and 8 m high. Find the total surface area of the six faces of the room.
- A dice is rolled once. What is the probability of getting:
a. 4 b. 7 c. an odd number d. a prime number?
- Find the measure of four angles of quadrilateral if they are in the ratio 3:5:7:9?

V. Answer the following**(4 × 5 = 20)**

- A field in the form of an isosceles trapezium whose perimeter is 215m. One of its non-parallel side is 50m. What is the sum of its parallel sides?
- Find the principal if the interest compounded annually at the rate of 10% for two years is Rs 210.
- A and B can do a piece of work in 10 days, B and C can do it in 15 days and A and C together can do it in 12 days. How long will they take to do it together?
- Plot the following points on graph sheet. Verify if they lie on a line.

A (4, 0), B (4, 2), C (4, 6), D (4, 2.5)

ANSWER KEYS:

I. 1. c 2. b 3. d 4. a 5. c

II 1. True 2. True 3. False 4. False 5. True
6. True 7. True 8. False 9. True 10. False

III. 1. (iv) 2. (v) 3. (ii) 4. (iii) 5. (i)

IV. 1. ₹ 12544 2. 16 km/h 3. 1016 sq. m
4. a. $\frac{1}{6}$ b. 0 c. $\frac{1}{2}$ d. $\frac{1}{2}$
5. 45° , 75° , 105° , 135°

V. 1. 115 m 2. ₹ 1000 3. 8 days

