

General Instructions:

1. This question paper consists of **15 multiple-choice questions (MCQs)**.
2. Each question carries **1 mark**. The maximum marks for this test are **15**.
3. The total time allowed to complete this test is **20 minutes**.
4. All questions are compulsory.
5. Each question has **four options (A), (B), (C), and (D)**. Only one option is correct.
6. Students must choose the **most appropriate option** for each question.
7. No marks will be deducted for incorrect answers.
8. Calculators and other electronic devices are **not permitted**.
9. Rough work should be done neatly in the space provided (if any).
10. Read each question carefully before answering.

General Instructions:

1. This paper contains 15 Multiple Choice Questions (MCQs).
2. Each question carries 1 mark.
3. All measurements are in cm unless specified. Take $\pi = \frac{22}{7}$.

Q.1 A rectangular park is 100 m long and 70 m wide. A path 5 m wide is built outside the park along its boundary. Find the area of the path.

- (a) 1800 sq. m
- (b) 1500 sq. m
- (c) 1700 sq. m
- (d) 1900 sq. m

Q.2 If the ratio of the areas of two squares is 9 : 16, then the ratio of their perimeters is:

- (a) 3 : 4
- (b) 9 : 16
- (c) 3 : 8
- (d) 4 : 3

Q.3 A parallelogram has a base of 15 cm and a corresponding altitude of 8 cm. If another altitude of the same parallelogram is 10 cm, find the length of the corresponding base.

- (a) 12 cm

- (b) 10 cm
- (c) 14 cm
- (d) 16 cm

Q.4 The area of a triangle is equal to the area of a square whose side is 12 cm. If the base of the triangle is 18 cm, find its height.

- (a) 16 cm
- (b) 12 cm
- (c) 18 cm
- (d) 20 cm

Q.5 A copper wire, when bent in the form of a square, encloses an area of 121 sq. cm. If the same wire is bent into the form of a circle, find the area of the circle.

- (a) 154 sq. cm
- (b) 144 sq. cm
- (c) 176 sq. cm
- (d) 132 sq. cm

Q.6 The area of a circular ring is 770 sq. cm. If the outer radius is 21 cm, find the inner radius.

- (a) 14 cm
- (b) 12 cm
- (c) 7 cm
- (d) 10 cm

Q.7 How many small cubes of edge 10 cm can be placed in a cuboidal box of dimensions 1 m \times 80 cm \times 50 cm?

- (a) 400

- (b) 500
- (c) 4000
- (d) 200

Q.8 A rectangular tank of base $4 \text{ m} \times 3 \text{ m}$ contains water to a height of 2 m. If this water is poured into a cubical tank of edge 4 m, what will be the height of water in the cubical tank?

- (a) 1.5 m
- (b) 1.25 m
- (c) 1.8 m
- (d) 2.2 m

Q.9 If the length of a rectangle is increased by 20% and its breadth is decreased by 20%, the area of the rectangle:

- (a) Remains unchanged
- (b) Increases by 4%
- (c) Decreases by 4%
- (d) Decreases by 2%

Q.10 The diameter of a car wheel is 70 cm. Find the distance traveled by the car in 1000 revolutions.

- (a) 2.2 km
- (b) 4.4 km
- (c) 1.1 km
- (d) 3.3 km

Q.11 The area of a rhombus is 120 sq. cm and its perimeter is 52 cm. Find the altitude of the rhombus.

- (a) 9.23 cm

- (b) 10 cm
- (c) 8.5 cm
- (d) 12 cm

Q.12 Find the area of the shaded region in a square of side 14 cm if four congruent quadrants are removed from the four corners (each of radius 7 cm).

- (a) 42 sq. cm
- (b) 154 sq. cm
- (c) 196 sq. cm
- (d) 49 sq. cm

Q.13 Three cubes of metal whose edges are 3 cm, 4 cm, and 5 cm are melted to form a single cube. Find the edge of the new cube.

- (a) 6 cm
- (b) 7 cm
- (c) 8 cm
- (d) 12 cm

Q.14 A field is in the shape of a trapezium whose parallel sides are 25 m and 10 m. The non-parallel sides are 14 m and 13 m. Find the area of the field.

- (a) 196 sq. m
- (b) 210 sq. m
- (c) 180 sq. m
- (d) 225 sq. m

Q.15 The volume of a cuboid is 440 cu. cm and its base area is 88 sq. cm. Find its height.

- (a) 5 cm
- (b) 10 cm
- (c) 4 cm
- (d) 8 cm

— *End of Question Paper* —

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