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. Use $\pi = \frac{22}{7}$ where necessary.

Q.1 A rectangular courtyard 3.78 m long and 5.25 m wide is to be paved exactly with square tiles, all of the same size. Find the largest possible side of such a tile.

(a) 21 cm

(b) 42 cm

(c) 63 cm

(d) 14 cm

Q.2 If the side of a square is increased by 25%, what is the percentage increase in its area?

(a) 25%

(b) 50%

(c) 56.25%

(d) 60%

Q.3 The base of a triangle is $\frac{3}{4}$ of its altitude. If the area of the triangle is 24 sq. cm, find its base.

(a) 6 cm

(b) 8 cm

(c) 4 cm

(d) 12 cm

Q.4 A field in the form of a parallelogram has an area of 150 sq. m. If the distance between its opposite sides is 10 m and 15 m, find the lengths of the two sides.

(a) 15 m, 10 m

(b) 20 m, 30 m

(c) 12 m, 8 m

(d) 25 m, 15 m

Q.5 The difference between the circumference and the diameter of a circle is 30 cm. Find the radius of the circle.

(a) 7 cm

(b) 14 cm

(c) 5 cm

(d) 10 cm

Q.6 A wire is in the shape of an equilateral triangle of side 11 cm. If it is rebent into a circular ring, what is the diameter of the ring?

(a) 10.5 cm

(b) 7 cm

(c) 21 cm

(d) 14 cm

Q.7 Find the area of a square whose diagonal is 10 cm long.

(a) 100 sq. cm

(b) 50 sq. cm

(c) 25 sq. cm

(d) 75 sq. cm

Q.8 A room is 12 m long, 9 m wide and 8 m high. Find the length of the longest rod that can be placed in this room.

(a) 15 m

(b) 17 m

(c) 19 m

(d) 21 m

Q.9 The cost of fencing a circular field at the rate of Rs.24 per meter is Rs.5280. Find the area of the field.

(a) 3850 sq. m

(b) 1540 sq. m

(c) 7700 sq. m

(d) 4200 sq. m

Q.10 Three cubes each of side 5 cm are joined face to face. Find the total surface area of the resulting solid.

(a) 450 sq. cm

(b) 350 sq. cm

(c) 400 sq. cm

(d) 375 sq. cm

Q.11 If the volume of a cuboid is 1200 cu. cm and its length and breadth are 15 cm and 10 cm respectively, find its total surface area.

(a) 700 sq. cm

(b) 800 sq. cm

(c) 650 sq. cm

(d) 750 sq. cm

Q.12 A minute hand of a clock is 14 cm long. How much area does it sweep in 15 minutes?

(a) 154 sq. cm

(b) 77 sq. cm

(c) 308 sq. cm

(d) 44 sq. cm

Q.13 A rectangular sheet of paper 44 cm × 18 cm is rolled along its length to form a cylinder. Find the radius of the cylinder.

(a) 7 cm

(b) 14 cm

(c) 3.5 cm

(d) 21 cm

Q.14 The ratio of the volumes of two cubes is 8 : 27. Find the ratio of their surface areas.

(a) 2 : 3

(b) 4 : 9

(c) 16 : 81

(d) 8 : 27

Q.15 A garden is 24 m long and 14 m wide. There is a path 1 m wide outside the garden along its sides. If the path is to be paved with square tiles of side 20 cm, how many tiles will be required?

(a) 1000

(b) 2000

(c) 1500

(d) 2500

— End of Question Paper —