Note: All questions carry 1 mark each.

1. Which of the following is not the unit of area?

   (a) km^2 (b) m^2 (c) m (d) cm^2

2. The length and breadth of a rectangular field are in the ratio 4: 3 and its perimeter is $140m$. The area of the rectangle is

   (a) $4800m^2$ (b) $5000m^2$ (c) $1200m^2$ (d) $650m^2$

3. A wire in the shape of rectangle having length $40cm$ and breadth $20cm$ is rebent in the shape of a square. The side of the square is

   (a) $10cm$ (b) $20cm$ (c) $30cm$ (d) $40cm$

4. How many tiles of measure $10cm \times 10cm$ are required to cover a rectangular surface of $400cm \times 250cm$?

   (a) 100 (b) 1000 (c) 500 (d) 200

5. Find the height of the parallelogram, whose area is $84.8cm^2$ and base is $4cm$.

   (a) $21.2cm$ (b) $42.4cm$ (c) $63.6cm$ (d) $10.6cm$

6. The base of an isosceles triangle is 24 cm and its area is 192 sq.cm Find its altitude on base

   (a) $16cm$ (b) $12cm$ (c) $32cm$ (d) $48cm$

7. Which of the following information related to circle is true?

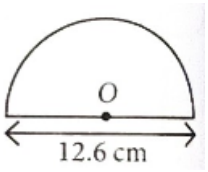
   (a) $\pi = \frac{\text{Circumference}}{\text{Diameter}}$ (b) $\pi =$ Circumference $\times$ Diameter

   (c) $\pi = \frac{\text{Diameter}}{\text{Circumference}}$ (d) $\pi = \frac{\text{Radius}}{\text{Diameter}}$

8. The ratio of the radii of two circles is 6: 7. Then, the ratio of their areas is

   (a) 36: 49 (b) 36: 7 (c) 6: 49 (d) None of these

9. Find the area of the adjoining figure, which is a semicircle having diameter $12.6cm$.



(a) $201.14\,cm^2$ (b) $124.74\,cm^2$ (c) $199\,cm^2$ (d) $62.37\,cm^2$

10. The area of the biggest circle that can be drawn inside a square of side $21cm$, is (Take $\pi = \frac{22}{7}$)

(a) 344.5 sq. cm (b) 364.5 sq. cm (c) 346.5 sq. cm (d) 366.5 sq. cm

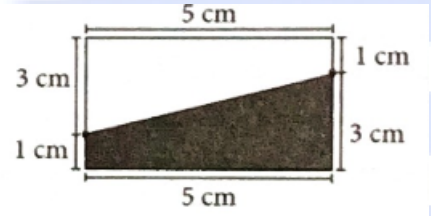
11. 36 unit squares are joined to form a rectangle with the least perimeter. Perimeter of the rectangle is

(a) 12 units (b) 26 units (c) 24 units (d) 36 units

12. Area of a rectangle and the area of a circle are equal. If the dimensions of the rectangle are $14\,cm \times 11cm$, then radius of the circle is

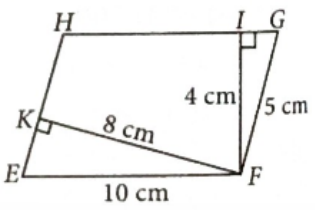
(a) $21cm$ (b) $10.5\,cm$ (c) $14\,cm$ (d) $7\,cm$

13. Area of shaded portion in the given figure is



(a) $25\,cm^2$ (b) $15\,cm^2$ (c) $14\,cm^2$ (d) $10\,cm^2$

14. In the given figure, E F G H is a parallelogram, altitudes F K and F I are $8cm$ and $4cm$ respectively. If $EF = 10\,cm$, then area of E F G H is



(a) $20\,cm^2$ (b) $32\,cm^2$ (c) $40\,cm^2$ (d) $80\ cm^2$

15. Area of a right–angled triangle is30 cm^2. If its smallest side is 5cm, then its hypotenuse is

(a) $14\,cm$ (b) $13\,cm$ (c) $12\,cm$ (d) $11cm$

16. Area of a circle with diameter ' m ', radius ' n ' and circumference ' p ' is

(a) $2\pi n$ (b) πm^2 (c) πp^2 (d) πn^2

17. If each side of a rhombus is doubled, how much will its area increase?

(a) 1.5 times (b) 2 times (c) 3 times (d) 4 times

18. If the radius of a circle is tripled, the area becomes

(a) 9 times (b) 3 times (c) 6 times (d) 30 times

19. Assertion : In a rectangle, if length, l=3 x, breadth, b=x and perimeter is 48 units, then value of x will be 12 units.

Reason : Perimeter of rectangle =2 (length + breadth)

(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.

(b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.

(c) If Assertion is true but Reason is false.

(d) If Assertion is false but reason is true.

20. Assertion : A B C D is a rectangle with sides $12\,cm$ and $4\,cm$. Then area of $\triangle ABD$ and $\triangle BCD$ is $12\,cm^2$.

Reason : Diagonal of a parallelogram bisects the parallelogram into two equal regions.

(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.

(b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.

(c) If Assertion is true but Reason is false.

(d) If Assertion is false but reason is true.

21. Assertion : A wheel of diameter $42\,cm$ will take 20 revolutions to cover a distance of $26.4\,m$.

Reason–Number of revolutions $= \dfrac{\text{Total distance covered}}{\text{Circumference of wheel}}$

(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.

(b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.

(c) If Assertion is true but Reason is false.

(d) If Assertion is false but reason is true.

22. Assertion : The area of a circle is $13.86\,m^{2.}$ Its circumference is $1320\,cm$.

Reason : $1m^2$ is equal to $100\,cm^2$.

(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.

(b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.

(c) If Assertion is true but Reason is false.

(d) If Assertion is false but reason is true.