G.S.C.E.

Chapter Covered 2D

(25 Questions with Options)

Q1

A room 5.44m long and 3.74m broad is to be paved with square tiles. The least number of square tiles required to cover the floor is:

a. 176 b. 192 c. 184 d. 162

Q2

If each side of a square is increased by 50%, the ratio of the area of the resulting square to the area of the given square is:

a. 5:4 b. 9:4 c. 4:5 d. 4:9

Q3

The measurement of a rectangular box with lid is 25cmx12cmx18cm. Find the volume of the largest sphere that can be inscribed in the box (in terms of πcm^3). (Hint: The lowest measure of rectangular box represents the diameter of the largest sphere)

a. 288 b. 48 c. 72 d. 864

Q4

The cost of cultivating a square field at the rate of Rs.135 per hectare is Rs.1215. The cost of putting a fence around it at the rate of 75 paise per meter would be :

a. Rs.360 b. Rs.810 c. Rs.900 d. Rs.1800

Q5

Four horses are tethered at four corners of a square plot of side 63 metres so that they just cannot reach one another. The area left ungrazed is:

a. $675.5m^2$ b. $780.6m^2$ c. $785.8m^2$ d. $850.5m^2$

Q6

The difference between the circumference and the radius of a circle is 37 cm. The area of the circle is:

a. 111 cm^2 b. 148cm^2 c. 154cm^2 d. 259cm^2

Q7

. A rectangular carpet has an area of 60 sq.m. If its diagonal and longer side together equal 5 times the shorter side, the length of the carpet is

a. 5m b. 12m c. 13m d. 14.5m

Q8

A circular wire of radius 42cm is cut and bent into the form of a rectangle whose sides are in the ratio of 6:5. The smaller side of the rectangle is:

a. 30cm b. 60cm c. 72cm d. 132cm.

Q9

The altitude of an equilateral triangle of side 3Ö3cm is:

a. 3cm b. 23cm c. 4.5cm d. 3/4 cm

Q10

A toothed wheel of diameter 50cm is attached to a smaller wheel of diameter 30cm. How many revolutions will the smaller wheel make when the larger one makes 15 revolutions?

a. 18 b. 20 c. 25 d. 30

Q11

The cross section of a canal is trapezium in shape. The canal is 12m wide at the top and 8m wide at the bottom. If the area of the cross section is 840 sq.m, the depth of the canal is:

a. 42m b. 84m c. 63m d. 8.75m

Q12

A man cycles round the boundary of a rectangular park at the rate of 12 kmph and completes one full round in 8 minutes. If the ratio between the length and breadth of the park be 3:2, then its area is:

a. $1536m^2$ b. $15360m^2$ c. $153600m^2$ d. None of these

Q13

A man walking at the speed of 4 kmph crosses a square field diagonally in 3 minutes. The area of the field is:

a. $18000m^2$ b. $20000m^2$ c. $19000m^2$ d. $25000m^2$

Q14

A circular road runs round a circular ground. If the difference between the circumferences of the outer circle and inner circle is 66 metres, the width of the road is:

a. 5.25m b. 7m c. 10.5m d. 21m

Q15

The area of a right-angled triangle is 30 sq.cm and the length of its hypotenuse is 13cm. The length of the shorter leg is:

a. 4cm b. 5cm c. 6cm d. 7cm

Q16

The sum of all angles around a point is

(a) 0^o

(b) 180^o

(c) 270^o

(d) 360^o

Q17

The ratio between the length and the breadth of a rectangular park is 3 : 2. If a man cycling along the boundary of the park at the speed of 12 km/hr completes one round in 8 minutes, then the area of the park (in sq. m) is:

A. 15360

B. 153600

C. 30720

D. 307200

Q18

The ratio between the perimeter and the breadth of a rectangle is 5 : 1. If the area of the rectangle is 216 sq. cm, what is the length of the rectangle?

A. 16 cm

B. 18 cm

C. 24 cm

D. Data inadequate

E. None of these

Q19

A rectangular park 60 m long and 40 m wide has two concrete crossroads running in the middle of the park and rest of the park has been used as a lawn. If the area of the lawn is 2109 sq. m, then what is the width of the road?

A. 2.91 m

B. 3 m

C. 5.82 m

D. None of these

Q20

The diagonal of the floor of a rectangular closet is $7\frac{1}{2}$ feet. The shorter side of the closet is $4\frac{1}{2}$ feet. What is the area of the closet in square feet?

A. $5\frac{1}{4}$

B. $13\frac{1}{2}$

C. 27

D. 37

Q21

A towel, when bleached, was found to have lost 20% of its length and 10% of its breadth. The percentage of decrease in area is:

A. 10%

B. 10.08%

C. 20%

D. 28%

Q22

The diagonal of a rectangle is $\sqrt{41}$ cm and its area is 20 sq. cm. The perimeter of the rectangle must be:

A. 9 cm

B. 18 cm

C. 20 cm

D. 41 cm

Q23

The length of a rectangle is halved, while its breadth is tripled. What is the percentage change in area?

A. 25% increase

B. 50% increase

C. 50% decrease

D. 75% decrease

Q24

A rectangular field is to be fenced on three sides leaving a side of 20 feet uncovered. If the area of the field is 680 sq. feet, how many feet of fencing will be required?

A. 34

B. 40

C. 68

D. 88

Q25

A tank is 25 m long, 12 m wide and 6 m deep. The cost of plastering its walls and bottom at 75 paise per sq. m, is:

A. Rs. 456

B. Rs. 458

C. Rs. 558

D. Rs. 568