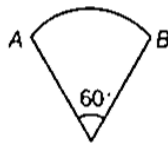


### Multiple Choice Questions

(1 mark each)

- A race track is in the form of a ring whose inner and outer circumference are 437 m and 503 m, respectively. The width of the track is  
 (a) 10.5 m                      (b) 20.5 m                      (c) 21 m                      (d) 30 m
- The radius of a bicycle wheel is 14 cm. The distance covered by the wheel after making 50 complete rotations is  
 (a) 88 cm                      (b) 2200 cm                      (c) 440 cm                      (d) 4400 cm
- If the area of circular field is  $30800 \text{ m}^2$ , then the perimeter of the field is  
 (a) 720 m                      (b)  $360\sqrt{2}$  m                      (c) 360 m                      (d) None of these
- The area of a segment of a circle of radius 21 cm, if the arc of the segment has a measure of  $60^\circ$  is : (take  $\sqrt{3} = 1.73$ )  
 (a)  $45.27 \text{ cm}^2$                       (b)  $40 \text{ cm}^2$                       (c)  $40.8 \text{ cm}^2$                       (d) None of these
- The given figure is a sector of circle of radius 10.5 cm. The perimeter of the sector is



- (a) 44 cm                      (b) 32 cm                      (c) 54 cm                      (d) None of these

### Short Answer Type (I) Questions

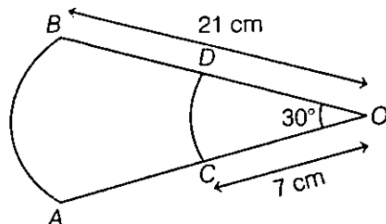
(2 marks each)

- If the area of a semi-circular field is 30800 sq m, then find the perimeter of the field.
- Find the area of the largest triangle that can be inscribed in a semi-circle of radius  $r$  unit.
- The sum of radii of two circles is 140 cm and the difference of their circumference is 88 cm. Find the diameters of the circles.
- The length of the minute hand of a clock is 14 cm. Find the area swept out by the minute hand in 1 h.
- A bucket is raised from a well by means of a rope which is wound round a wheel of diameter 77 cm. If the bucket ascends in 1 min 28 sec with a uniform speed of 1.1 m/sec, then calculate the number of complete revolutions the wheel makes in raising the bucket.
- A cow is tied with a rope of length 14 m at the corner of a rectangular field of dimensions  $20 \text{ m} \times 16 \text{ m}$ . Find the area of the field in which the cow can graze.

## Short Answer Type (II) Questions

(3 marks each)

12. A road which is 7 m wide surround a circular park whose circumference is 88 m. Find the area of the road.
13.  $AB$  and  $CD$  are respectively arcs of two concentric circles of radii 21 cm and 7 cm with centre  $O$  (see the figure). If  $\angle AOB = 30^\circ$ , then find the area of the shaded region.



## Long Answer Type Questions

(5 marks each)

14. The area of an equilateral triangle is  $17320.5 \text{ cm}^2$ . With each vertex as centre, a circle is described with radius equal to half the length of the side of the triangle. Find the area of the triangle not included in the circle. [Use  $\pi = 3.14$  and  $\sqrt{3} = 1.73205$ ]
15. The cost of fencing a circular field at the rate of ₹ 36 per m is ₹ 11880. The field is to be ploughed at the rate of ₹ 0.60 per  $\text{m}^2$ . Find the cost of ploughing the field. [Take,  $\pi = 22/7$ ]

## Answers

- |                           |                            |                       |                       |        |
|---------------------------|----------------------------|-----------------------|-----------------------|--------|
| 1. (a)                    | 2. (d)                     | 3. (d)                | 4. (b)                | 5. (b) |
| 6. 720 m                  | 7. $r^2$ sq units          | 8. 154 cm, 126 cm     | 9. $616 \text{ cm}^2$ |        |
| 10. 40                    | 11. $154 \text{ m}^2$      | 12. $770 \text{ m}^2$ |                       |        |
| 13. $102.67 \text{ cm}^2$ | 14. $1620.51 \text{ cm}^2$ | 15. ₹ 5197.5          |                       |        |

For Solution  
scan QR code



