CLASS-X

MATHEMATICS

AREAS RELATED TO CIRCLES

Worksheet (Module 2/2)

Q1. **A plot is in the form of a rectangle ABCD having semi-circle on BC as shown in the figure. If AB = 60m and BC = 28m, find the area of the plot.**

Q2. **A play ground has the shape of a rectangle, with two semi-circles on its smaller sides as diameters, added to its outside. If the sides of the rectangle are 36m and 24.5m, find the area of the playground.**
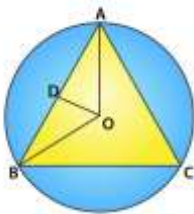
Q3. **A rectangular piece is 20m long and 15m wide. From its four corners, quadrants of radii 3.5m have been cut. Find the area of the remaining part.**

Q4. **Four cows are tethered at four corners of a square plot of side 50m, so that they just cannot reach one another. What area will be left un-grazed?**

Q5. **A square tank has its side equal to 40 m. There are four semi-circular grassy plots all around it. Find the cost of turfing the plot at Rs 1.25 per square meter.**

Q6. **The inner perimeter of a running track is 400 m. The length of each of the straight portion is 90 m and the ends are semi-circles. If the track is everywhere 14 m wide, find the area of the track. Also, find the length of the outer running track.**

Q7. **In fig., an equilateral triangle ABC of side 6 cm has been inscribed in a circle. Find the area of the shaded region (blue coloured) . (Take π = 3.14).**

Q8. In the given figure, APB and CQD are semicircles of diameter 7 cm each, while ARC and BSD are semicircles of diameter 14 cm each. Find the

(i) Perimeter,
(ii) Area of the shaded region