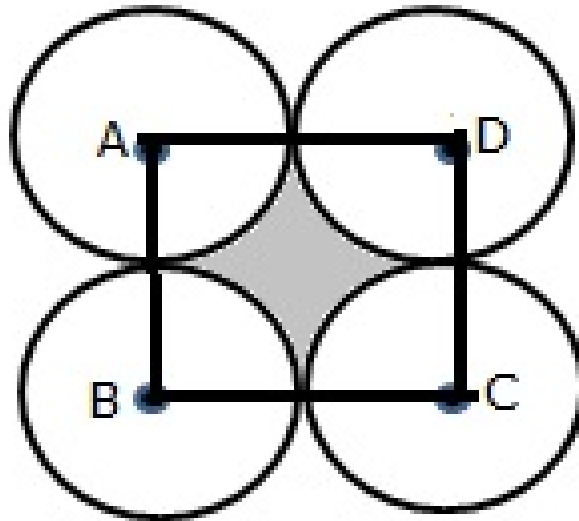




Question 40:



Let A, B, C, D be the centres of these circles

Join AB, BC, CD and DA

Side of square = 10 cm

Area of square ABCD

$$= (10 \times 10) \text{ cm}^2$$

$$= 100 \text{ cm}^2$$

$$\text{Area of each sector} = \left( \pi^2 \times \frac{\theta}{360} \right) = 3.14 \times 5 \times 5 \times \frac{90}{360}$$

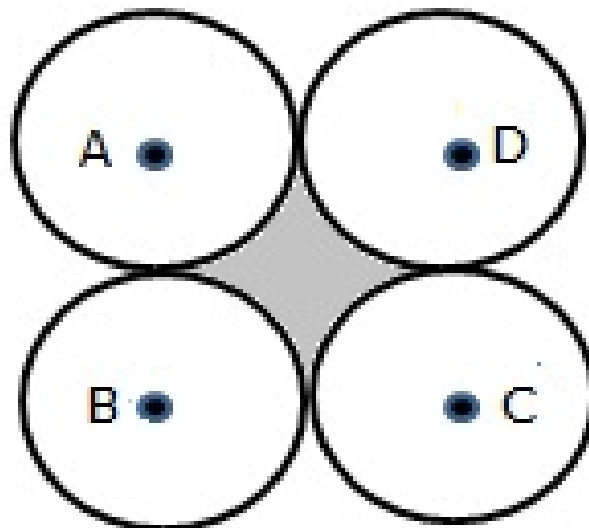
$$= 19.625 \text{ cm}^2$$

Required area = [area of sq. ABCD - 4(area of each sector)]

$$= (100 - 4 \times 19.625) \text{ cm}^2$$

$$= (100 - 78.5) = 21.5 \text{ cm}^2$$

Question 41:



Required area = [area of square - areas of quadrants of circles]

Let the side = 2a unit and radius = a units

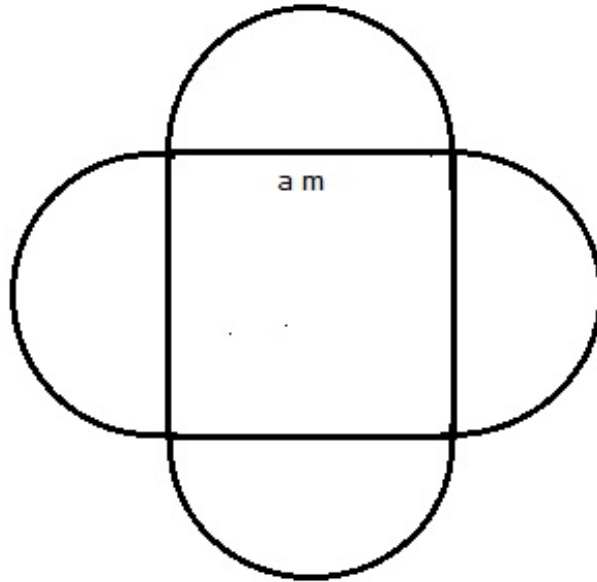
Area of square = (side  $\times$  side) =  $(2a \times 2a)$  sq. units =  $4a^2$  sq. units

Area of quadrant =  $\frac{1}{4} \pi r^2$

Area of 4 quadrants =  $4 \times \frac{1}{4} \pi r^2 = \pi r^2 = \frac{22}{7} \times a \times a = \frac{22}{7} a^2$  sq. unit

Required area =  $\left(4a^2 - \frac{22}{7} a^2\right)$  sq. unit =  $\frac{6a^2}{7}$

Question 42:



Let the side of square =  $a$  m

Area of square =  $(a \times a)$  cm =  $a^2 \text{ m}^2$

$$\therefore a^2 = 1600$$

$$a = \sqrt{1600} \text{ m}$$

$$a = 40 \text{ m}$$

Side of square = 40 m

Therefore, radius of semi circle = 20 m

Area of semi circle =  $\frac{1}{2} \pi r^2 = \left(\frac{1}{2} \times 3.14 \times 20 \times 20\right) \text{ m}^2$   
=  $628 \text{ m}^2$

Area of four semi circles =  $(4 \times 628) \text{ m}^2 = 2512 \text{ m}^2$

Cost of turfing the plot of area  $1 \text{ m}^2$  = Rs. 1.25

Cost of turfing the plot of area  $2512 \text{ m}^2$  = Rs.  $(1.25 \times 2512)$   
= Rs. 3140

\*\*\*\*\* END \*\*\*\*\*