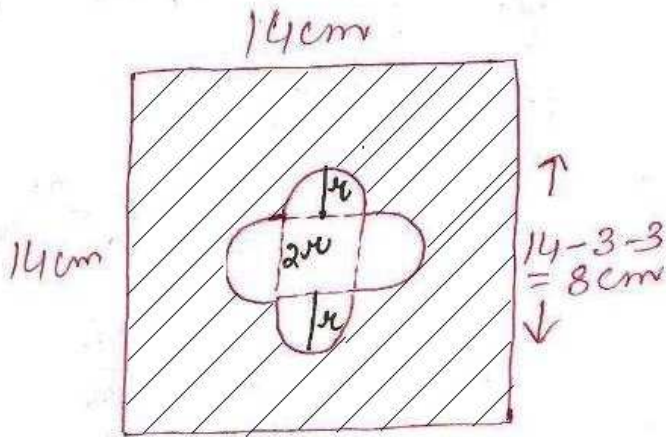


17



$$4x = 8 \text{ cm}$$

$$\Rightarrow x = 2 \text{ cm}$$

area of shaded region
 $= \text{area (Sq.)} - \text{ar (inner design)}$

$$= \text{Side}^2 - [\text{ar Sq} + \text{ar 4 Semi Os}]$$

$$= 14^2 - \left[(2x)^2 + 4 \times \frac{\pi x^2}{2} \right]$$

$$= 196 - \left[(2 \times 2)^2 + 4 \times \frac{2 \times 2 \times 2 \times 2}{2} \right]$$

$$= 196 - \left[16 + \frac{176}{7} \right]$$

$$= 196 - 16 - \frac{176}{7}$$

$$= 180 - \frac{176}{7}$$

$$= \frac{1260 - 176}{7}$$

$$= \frac{1084}{7}$$

$$= 158.3 \text{ cm}^2$$

or

area of shaded region
 $= \text{area (Sq.)} - \text{ar (inner design)}$

$$= \text{Side}^2 - [\text{ar (Sq.)} + \text{ar (4 semi Os)}]$$

$$= 14^2 - \left[4^2 + \frac{4 \times \pi \times 2^2}{2} \right]$$

$$= 196 - 16 - 8\pi$$

$$= (180 - 8\pi) \text{ cm}^2$$