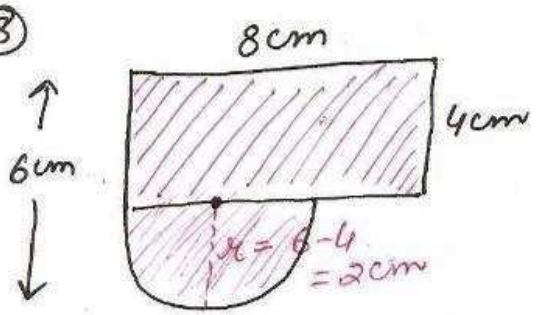
(8)



area of shaded region

= ar(rect) + ar(semi ⊙)

$= 8 \times 4 + \frac{22}{7} \times \frac{2 \times 2}{2}$

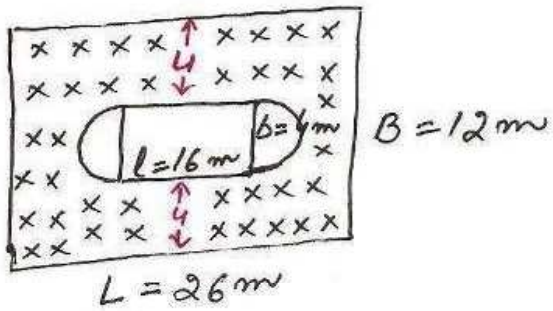
$= 32 + \frac{44}{7}$

$= \frac{224 + 44}{7}$

$= \frac{268}{7}$

$= 38.28 \text{ cm}^2$

(9)



area of shaded region

= area of outer rect −
area of inner rect with semi circular ends

$= LB - (lb + 2 \times \frac{\pi r^2}{2})$

$= 26 \times 12 - (16 \times 4 + \frac{22}{7} \times 2 \times 2)$

$= 312 - (64 + \frac{88}{7})$

$= 312 - \frac{448 + 88}{7}$

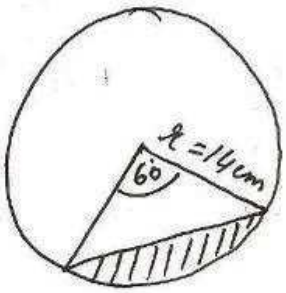
$= 312 - \frac{536}{7}$

$= \frac{2184 - 536}{7}$

$= \frac{1648}{7}$

$= 235.428 \text{ cm}^2$

(10)



area of Segment

= area of Sector − area(△)

$= \frac{\pi r^2 \theta}{360} - \frac{\sqrt{3}}{4} a^2$

$= \frac{22 \times 14 \times 14 \times 60}{7 \times 360} - \frac{\sqrt{3}}{4} \times 14 \times 14$

$= \frac{308}{3} - 49\sqrt{3}$

$= \frac{308 - 147\sqrt{3}}{3}$

$= \frac{53.38}{3}$

$= 17.796 \text{ cm}^2$

NCERT Exemplar Solutions by Dev Anoop (Bathinda)