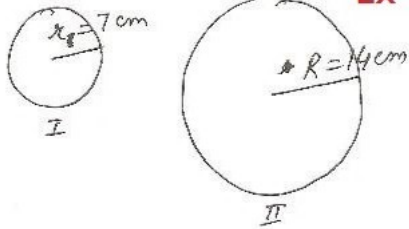


④



$$\frac{SA_I}{SA_{II}} = \frac{4\pi r^2}{4\pi R^2}$$

$$= \frac{7 \times 7}{14 \times 14}$$

$$= \frac{1}{4}$$

∴ reqd. ratio = 1:4

Ex 13.4

⑥



SA of sphere = 154 cm<sup>2</sup>

$$4\pi r^2 = 154$$

$$4 \times \frac{22}{7} r^2 = 154$$

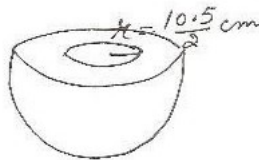
$$\Rightarrow r^2 = \frac{154 \times 7}{4 \times 22}$$

$$\Rightarrow r = \sqrt{\frac{7 \times 7}{2 \times 2}}$$

$$= \frac{7}{2} \text{ cm}$$

$$= 3.5 \text{ cm}$$

⑤



$$C.S.A = 2\pi r^2$$

$$= 2 \times \frac{22}{7} \times \frac{10.5}{2} \times \frac{10.5}{2}$$

$$= \frac{346.5}{2} \text{ cm}^2$$

cost of tin plat. 100 cm<sup>2</sup> = Rs 16

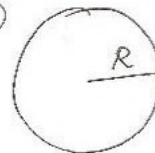
cost of tin plat. 346.5 cm<sup>2</sup>

$$= \frac{16}{100} \times \frac{346.5}{2}$$

$$= \text{Rs } \frac{55.44}{2}$$

$$= \text{Rs } 27.72$$

⑦



earth (I)



moon (II)

let D = 8x units | d =  $\frac{8x}{4}$

= 2x units

∴ R = 4x units

r = x units

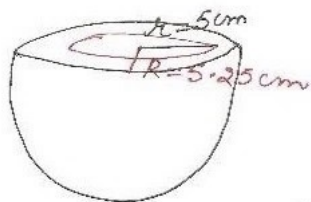
$$\frac{SA_{II}}{SA_I} = \frac{4\pi r^2}{4\pi R^2}$$

$$= \frac{x \times x}{4 \times 4 \times x}$$

$$= \frac{1}{16}$$

∴ reqd. ratio = 1:16

⑧

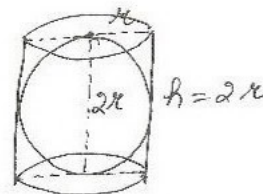


$$\text{outer C.S.A} = 2\pi R^2$$

$$= 2 \times \frac{22}{7} \times \frac{5.25}{2} \times \frac{5.25}{2}$$

$$= 173.25 \text{ cm}^2$$

⑨



SA of sphere = 4πr<sup>2</sup>

CSA of cylinder = 2πrh

$$= 2\pi r \times 2r$$

$$= 4\pi r^2$$

reqd ratio =  $\frac{4\pi r^2}{4\pi r^2}$

$$= \frac{1}{1}$$

$$= 1:1$$