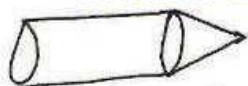


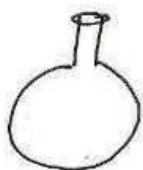
NCERT Exemplar Solutions by (Dev Anoop)

①



(A) cone and cylinder

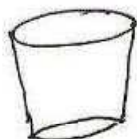
②



(A) sphere and cylinder

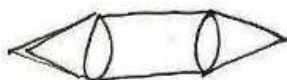
③ (B) hemisphere and cone

④



(B) frustum of a cone

⑤



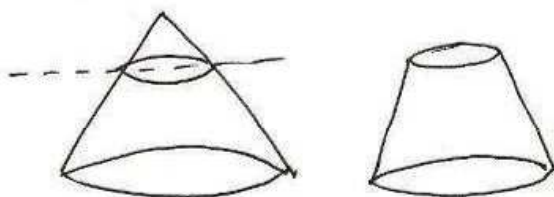
(C) 2 cones and a cylinder

⑥



(D) frustum of a cone and hemisphere

⑦



(A) frustum of a cone

⑧ no of marbles = $\frac{7 \text{ vol of cube}}{\text{vol of marble}}$

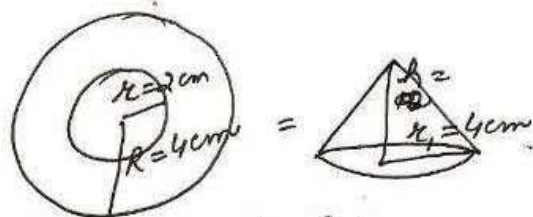
$$= \frac{7 \times 22 \times 22 \times 22}{82}$$

$$= \frac{4 \times 22 \times 0.5 \times 0.5 \times 0.5}{3 \times 7 \times 2 \times 2 \times 2}$$

$$= \frac{7 \times 11 \times 11 \times 3 \times 7 \times 2}{2 \times 5 \times 5 \times 5}$$

$$= 142296 \quad (\text{A})$$

⑨



$$\frac{4}{3} \pi (R^3 - r^3) = \frac{1}{3} \pi r_1^2 h$$

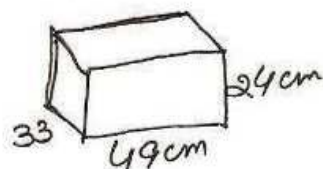
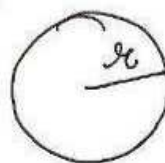
$$4(4^3 - 2^3) = 4 \times 4 \times h$$

$$64 - 8 = 4h$$

$$\Rightarrow h = \frac{56}{4}$$

\therefore height of cone = 14cm (B)

⑩



volume of sphere = volume of cuboid

$$\frac{4}{3} \pi r^3 = lbh$$

$$\frac{4}{3} \times \frac{22}{7} r^3 = 49 \times 33 \times 24$$

$$r^3 = 7 \times 7 \times 7 \times 3 \times 3 \times 3$$

$$\Rightarrow r = \sqrt[3]{7^3 \times 3^3}$$

$$= 7 \times 3$$

$$= 21 \text{ cm}$$

(A)