[Aim: 100/100 in Maths]

# SURFACE AREAS & VOLUME


[cuboid]


[cube]

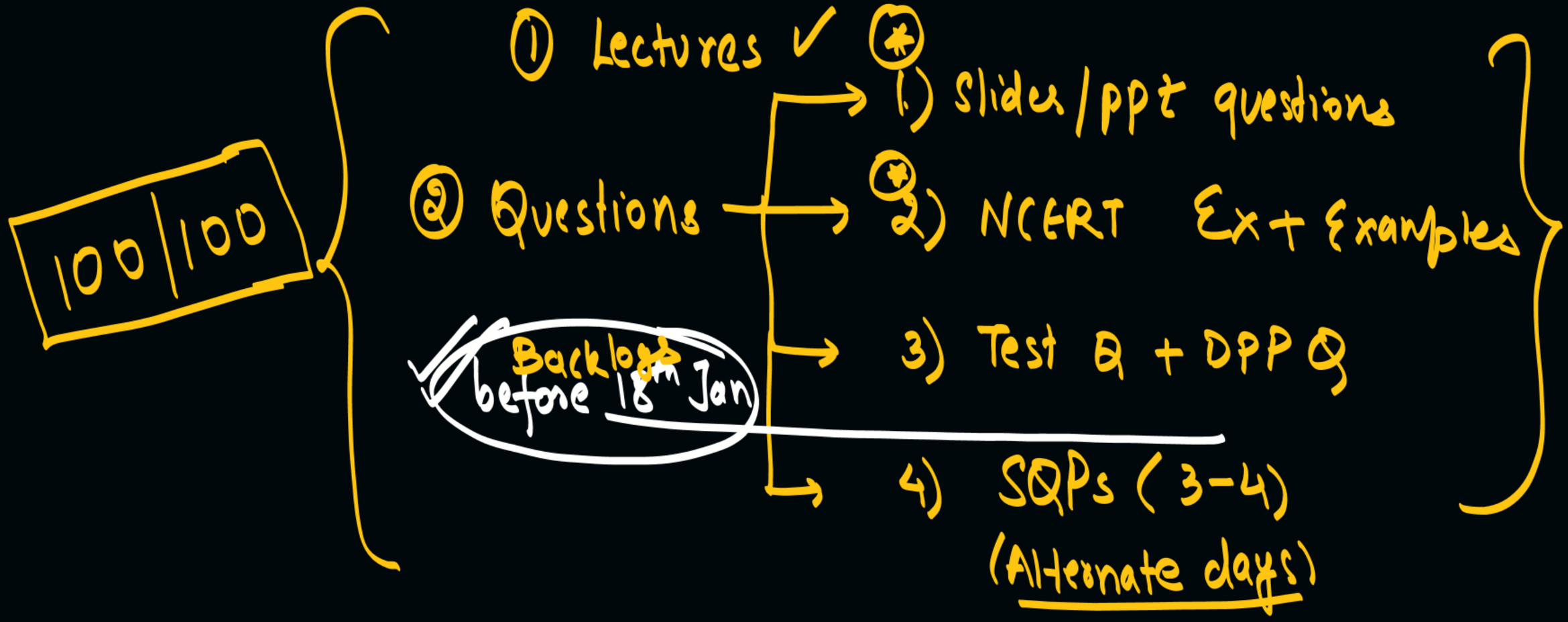

[cone]


[cylinder]

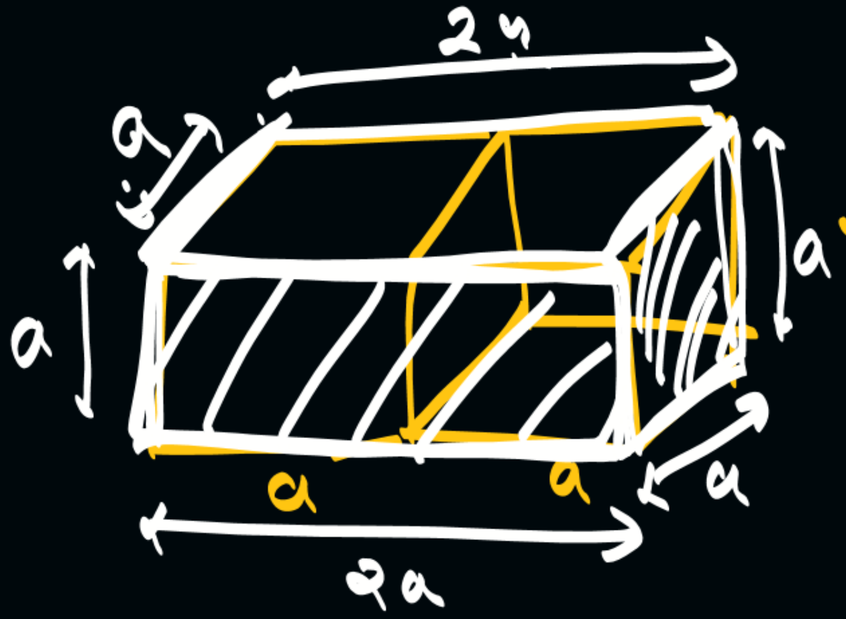

[sphere]


[Hemisphere]

| | [cuboid] | [cube] | [cone] | [cylinder] | [sphere] | [Hemisphere] |
|---|---|---|---|---|---|---|
| CSA/ LSA | $2(lh)+2(bh)$ $\Rightarrow \underline{2(l+b)h}$ | $4a^2$ | $\pi r l$ | $2\pi r h$ | $4\pi r^2$ | $2\pi r^2$ |
| TSA | $2(lb+bh+hl)$ | $6a^2$ | $\pi r l + \pi r^2$ | $2\pi r h + 2\pi r^2$ | $4\pi r^2$ | $2\pi r^2 + \pi r^2$ $= 3\pi r^2$ |
| Volume | $lbh$ | $a^3$ | $\frac{1}{3}\pi r^2 h$ | $\pi r^2 h$ | $\frac{4}{3}\pi r^3$ | $\frac{1}{2}\left(\frac{4}{3}\pi r^3\right)$ $= \frac{2}{3}\pi r^3$ |


100|100
① Lectures ✓
1) Slides/ppt questions
② Questions
2) NCERT Ex + Examples
Backlogs before 18th Jan
3) Test Q + DPP Q
4) SQPs (3-4)
(Alternate days)

# Combination of figures :-




LSA $2(2a^2) + 2(a)^2$

$\Rightarrow 4a^2 + 2a^2 \Rightarrow \boxed{6a^2}$

TSA $\Rightarrow$ LSA + ar of top & bottom

$\Rightarrow 6a^2 + 2(2a^2)$

$\Rightarrow \boxed{8a^2}$

Volume

$a^3 + a^3 \Rightarrow \boxed{2a^3}$


→ TSA = [TSA of cube − ar. of circle] + CSA of hemisphere

→ Volume = Vol. of cube + Vol. hemisphere

→ TSA = (TSA cube - ar of circle) + CSA cone

→ Volume = Vol. cone + Vol. cube

HW

→ TSA

→ Volume.