

## MIND MAP

### **Sphere and Hemi-sphere**

- (i) Surface area of sphere :  $4\pi r^2$
- (ii) Curved surface area of hemi-sphere  $2\pi r^2$
- (iii) Total surface area of hemi-sphere  $3\pi r^2$
- (iv) Volume of sphere :  $\frac{4}{3}\pi r^3$
- (v) Volume of hemi-sphere :  $\frac{2}{3}\pi r^3$

### **Frustum of right circular cone**

- (i) Curved surface area of frustum  $\pi(R + r)\ell$
- (ii) Total surface area of frustum  $\pi(R + r)\ell + \pi R^2 + \pi r^2$
- (iii) Volume of frustum  $\frac{1}{3}\pi(R^2 + r^2 + Rr)h$

### **Cuboid and cube**

- (i) Total surface area of cuboid  $2(\ell b + bh + \ell h)$
- (ii) Lateral surface area of cuboid  $2(bh + \ell h)$
- (iii) Volume of cuboid :  $\ell b h$
- (iv) Lateral surface area of cube :  $4a^2$

### **Right circular cylinder**

- (i) Curved surface area of a cylinder  $2\pi r h$
- (ii) Total surface area of a cylinder  $2\pi r(h + r)$
- (iii) Volume of cylinder :  $\pi r^2 h$

### **Right circular cone**

- (i) Curved surface area of a cone :  $\pi r \ell$
- (ii) Total surface area of a cone  $\pi r(r + \ell)$
- (iii) Volume of Right Circular Cone  $\frac{1}{3}\pi r^2 h$