

(1 mark for rounding awarded). (1)

Total : 5

$$\begin{aligned} 5) \text{ Volume of one sphere} &= \frac{4}{3} \times \pi \times 5^3 \\ &= \frac{500\pi}{3} = 523.5988 \text{ cm}^3 \end{aligned} \quad (1)$$

Volume of two spheres

$$= \frac{1000\pi}{3} = 1047.1975 \text{ cm}^3 \quad (1)$$

$$\begin{aligned} \text{Volume of cylinder} &= \pi \times 5^2 \times 20 \\ &= 500\pi. \end{aligned} \quad (1)$$

volume of space remaining =

$$500\pi - \frac{1000\pi}{3} = \frac{500\pi}{3} \quad (1)$$

Total : 4.