

## Density Past Paper Questions Jan 2002 to Jan 2009

### Q6 Jan 2004

- 6 (a) Define the *density* of a material.

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(1 mark)

- (b) Brass, an alloy of copper and zinc, consists of 70% **by volume** of copper and 30% **by volume** of zinc.

$$\begin{aligned} \text{density of copper} &= 8.9 \times 10^3 \text{ kg m}^{-3} \\ \text{density of zinc} &= 7.1 \times 10^3 \text{ kg m}^{-3} \end{aligned}$$

- (i) Determine the mass of copper and the mass of zinc required to make a rod of brass of volume  $0.80 \times 10^{-3} \text{ m}^3$ .

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- (ii) Calculate the density of brass.

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(4 marks)