

Question			Marking details	Marks Available
3	(a)	(i)	Repeat readings / accurate technique (1) Length and width correct [Area within 5% of centre value](1) Measurements to nearest mm with units (1)	3
		(ii)	Minimum of 8 thicknesses used (1) [i.e. 3 folds] Thickness correct to 0.01 mm (1) Units (1)	3
		(iii)	Larger thickness measured (1) $\therefore$ smaller uncertainty (1) [Accept: Foil could be creased (1) $\therefore$ larger uncertainty (1)]	2
		(iv)	Mass recorded with unit [ $10 \pm 5$ g or centre value]	1
		(v)	Density correct [e.c.f.](1) with density units (1)	2
	(b)	(i)	Correct reading with units[m <sup>3</sup> or cm <sup>3</sup> ]	1
(ii)		Answer to (i) – 30 [accept – 50]	1	
(iii)		Density calculated correctly [with correct units]	1	
(iv)		5% of 2.7 = 0.14 g cm <sup>-3</sup> . (1) [or equivalent] Both own values correctly compared to $2.7 \pm 1.4$ (1) [Or for 1 mark - valid comment comparing their values to 2.7]	2	
Total question 3				20