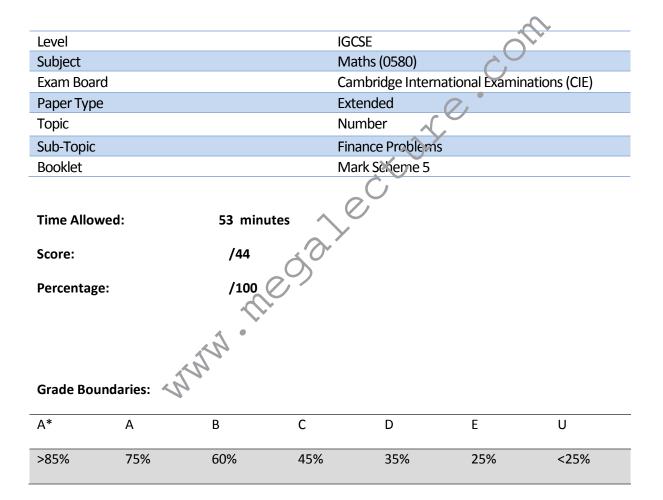
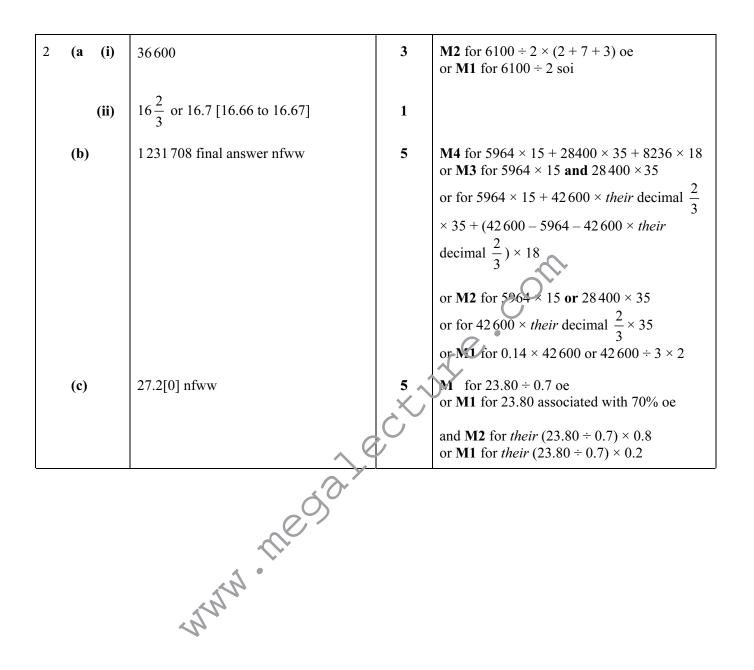


Finance Problems

Mark Scheme 5



1	(a	(i)	1245 [pm]	2	B1 for 2045 seen or 845 pm seen or [0]135 seen
		(ii)	788 or 787.8 to 788.1	2	M1 for 8800 ÷ 11h 10 mins oe
	(b)	(i)	4230[.00]	2	M1 for 2350 ÷ 5 oe
		(ii)	22.2 or 22.2	1	
	(c)	(i)	3808 final answer	2	M1 for $2240 \times \frac{100 + 70}{100}$ oe
		(ii)	800	3	M2 for $2240 \div \frac{100 + 180}{100}$ oe or M1 for 2240 associated with 280%
	(d)	(i)	1130	4	M3 for $(826.5[0] - 12 \times (28 + 6.5[0])) \div 1.25$ seen or M2 for $826.5[0] - 12 \times (28 + 6.5[0])$ seen or M1 for $12 \times (28 + 6.5[0])$ seen
		(ii)	\$146.9[0] final answer	2FT	their(d)(i) × 0.13 correctly evaluated If answer not exact to at least 3 sf or better M1 for <i>their</i> (d)(i) \div 10 × 1.3



3 (a) (i)	$x \ge 100$ final answer	1	
(ii)	$y \ge 120$ final answer	1	
(iii)	$x + y \le 300$ final answer	1	
(iv)	$40x + 80y \ge 16000$ or $0.4x + 0.8y \ge 160$	M1	with no errors seen but isw substitution of values after correct inequality
(b)	x = 100 ruled	B 1	
	y = 120 ruled	B 1	
	x + y = 300 ruled	B1	
	x + 2y = 400 ruled	B2	Allow B1 for line with negative gradient passing through (400, 0) or (0, 200) when extended
	Correct shading	B1	Dep on all previous marks earned Condone any clear indication of the required region
(c)	200	2	M for $x = 100$ and $y = 200$ selected or for $x \times 0.4 + y \times 0.8$ oe evaluated where (x, y) is an integer point in <i>their</i> [unshaded] region