

FSMQ 2005

January Series



Mark Scheme

Calculating Finances (6984)

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Key to Mark Scheme

M	mark is for	method
m	mark is dependent on one or more M marks and is for	method
A	mark is dependent on M or m mark and is for	accuracy
B	mark is independent of M or m and is for	method and accuracy
E	mark is for	explanation
√ or ft		follow through from previous incorrect result
cao		correct answer only
cso		correct solution only
awfw		anything which falls within
awrt		anything which rounds to
acf		any correct form
ag		answer given
sc		special case
oe		or equivalent
sf		significant figure(s)
dp		decimal place(s)
A2,1		2 or 1 (or 0) accuracy marks
- x ee		deduct x marks for each error

Abbreviations used in marking

MC - x	deducted x marks for mis-copy
MR - x	deducted x marks for mis-read
isw	ignored subsequent working
bod	gave benefit of doubt
wr	work replaced by candidate

Application of mark scheme

Correct answer without working	mark as in scheme
Incorrect answer without working	zero marks unless specified otherwise

Award method and accuracy marks as appropriate to an alternative solution using a correct method or partially correct method.

Free-Standing Mathematics Qualification
Intermediate Level – Calculating Finances (6984)
January 2005

Answers and Marking Scheme

Question 1

(a)	$2 \times 62 + 351$	M1	
	$= \text{£}475$	A1	
(b)	Cost is $2 \times \text{£}292 = \text{£}584$	B1	
	Reduction is $\text{£}109$	B1 \checkmark	
	% is $\frac{109}{584} \times 100$	M1 \checkmark	Needs 584
	$= 18.7\%$	A1	Accept 18.66...
(c)	Total cost of five flights is $4 \times \text{£}292 + 62$	M1	
	$= \text{£}1230$	A1	
	Average cost is $\text{£} \frac{1230}{5}$	M1	Dependent on $(4 \times \text{£} 292 + \text{multiple of } 62) \div 5$
	$= \text{£}246$	A1	
	TOTAL	10	

Question 2

(a)	£159.77	B1	
(b)	Total repayments = £159.77 × 36	M1	
	= £5751.72	A1	
	Interest is £751.72	A1	
(c)	Percentage is $\frac{751.72}{5000} \times 100$	M1	
	= 15.0%	A1	accept 15.03...
(d)	APR = $\frac{2 \times 12 \times 751.72}{5000 \times 37} \times 100$	B1	37 – see 36 + 1
		M1	other terms correct
	= 9.75%	A1	Accept 9.752...
	TOTAL	9	

Question 3

(a)	Correct plotting	B3	2 points B1 4 points B2
(b)	Steady decline	B1	
	TOTAL	4	

Question 4

(a)	VAT = $\frac{17.5}{100} \times 1700$	M1	or selling price = $\frac{117.5}{100} \times 1700$ = 1997.5 £1997.50
	= £297.50	A1	
	Total £1997.50	A1	
(b)	VAT = $\frac{17.5}{117.5} \times 2000$	M1	or pre-VAT price is $\frac{100}{117.5} \times 2000$ M1 = £1720.30 A1 ∴ VAT = £297.87 A1
	= £297.87234	A1	
	= £297.87	A1	
	TOTAL	6	

Question 5

(a)	Annual income is $12 \times \text{£}2183$		
	= $\text{£}26\,196$	B1	
	Taxable income = $\text{£}26\,196 - 4745$	M1	
	= $\text{£}21\,451$	A1	
(b)	Tax paid = $2020 \times 10\text{p}$		
	+ $19431 \times 22\text{p}$	M1 M1	19 661 ft from (a) 2 multiples, at least one correct
	= $\text{£}202 + \text{£}4274.82$	A1	Both correct ft from (a)
	= $\text{£}4476.82$	A1	
	TOTAL	7	

Question 6

(a)	Monthly pay = $\frac{£39000}{12}$	M1	
	= £3250	A1	
(b)	Payment is 11% of £2149	B1	2149
	+ 1% of £715	M1	2 multiples at least one correct
	= £236.39 + 7.15	A1	either
	= £243.54	A1	
(c)	£243.54 × 12		
	= £2922.48	B1✓	12 × (b)
(d)	$\frac{2922.48}{39000} \times 100$	M1	ft from (c)
	= 7.493	A1	ft from (c)
	= 7.49%	A1	ft from (c)
	TOTAL	10	

Question 7

	Price at end of 2002 = 1.2 × price at start of 2002		
	Price at end of 2003 = 1.15 × price at start of 2003		If initial price £1000 (eg) price at end of 2002 is £1200
	Price at end of 2003 is 1.2 × 1.15 × price at start of 2002	M1	Price at end of 2003 is £1200 × 1.15
	= 1.380 × price at start of 2002	A1	= £1380
	∴ increase is 0.380 × price at start of 2002	M1	Increase is £380
	= 38%	A1	or 38%
	TOTAL	4	
	TOTAL MARK FOR PAPER	50	