



Free-Standing Mathematics Qualification

Calculating Finances *6984/2*

Mark Scheme

2006 examination – June series

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Key to mark scheme and abbreviations used in marking

M	mark is for method		
m or dM	mark is dependent on one or more M marks and is for method		
A	mark is dependent on M or m marks and is for accuracy		
B	mark is independent of M or m marks and is for method and accuracy		
E	mark is for explanation		
✓ or ft or F	follow through from previous		
	incorrect result	MC	mis-copy
CAO	correct answer only	MR	mis-read
CSO	correct solution only	RA	required accuracy
AWFW	anything which falls within	FW	further work
AWRT	anything which rounds to	ISW	ignore subsequent work
ACF	any correct form	FIW	from incorrect work
AG	answer given	BOD	given benefit of doubt
SC	special case	WR	work replaced by candidate
OE	OE	FB	formulae book
A2,1	2 or 1 (or 0) accuracy marks	NOS	not on scheme
–x EE	deduct x marks for each error	G	graph
NMS	no method shown	c	candidate
PI	possibly implied	sf	significant figure(s)
SCA	substantially correct approach	dp	decimal place(s)

Application of Mark Scheme

No method shown:

Correct answer without working
Incorrect answer without working

mark as in scheme
zero marks unless specified otherwise

More than one method / choice of solution:

2 or more complete attempts, neither/none crossed out

mark both/all fully and award the mean
mark rounded down

1 complete and 1 partial attempt, neither crossed out

award credit for the complete solution only

Crossed out work

do not mark unless it has not been replaced

Alternative solution using a correct or partially correct method

award method and accuracy marks as
appropriate

Free-Standing Mathematics Qualification**Intermediate Level – Calculating Finances (6984/2)****Answers and Marking Scheme****Question 1**

	A	B	C	D
1	Year	Total value of UK internet payments (£ billion)	Number of transactions (millions)	Average cost of transaction
2	1999	1.5	18	£83
3	2000	3.5	57	£61
4	2001	6.4	105	£61
5	2002	9.0	140	£64
6	2003	13.1	200	£65 (or £66)

(a)	Any one correct	M1A1	Consistent dp error (not to nearest £) SC1 Consistent dp error SC2 (and to nearest £)
	Other values	A1	
	Nearest integer	B1	At least 2 correct
(b)	$\frac{B_3}{C_3} \times 1000$	B1	
(c)	Costs are static	B1	Any other sensible Eg: sharp fall in 2000, then slowly rising
	TOTAL	6	

Question 2

	Total £294	B1	
	Fraction $\frac{84}{294}$	M1	
	$= \frac{2}{7}$	A1	
	TOTAL	3	

Question 3

	1 : 4 \Rightarrow 5 parts	B1	
	Jerry pays $\frac{4}{5} \times £50$	M1	
	$= £40$	A1	SC2 £10 or 10 and 40
	TOTAL	3	

Question 4

(a)	£536.82	B1	
(b)	$£536.82 \times 12 \times 30$	M1	
	$= £193\,255.20$	A1	
	Interest = £93 255.20	A1 ft	93255.2 M1 A1 A0 Penalise once per paper
(c)	$\frac{93255.20}{100000} \times 100$	M1	
	$= 93.26\%$	A1 ft	Accept 93.3%, 93%
(d)(i)	Increase is £699.21 – 536.82		
	$= £162.39$	B1	
	Percentage is $\frac{162.39}{536.82} \times 100$	M1	
	$= 30.25\%$	A1	Accept 30.3
(ii)	They are repaying the capital borrowed	B1	
	TOTAL	10	

Question 5

(a)	Annual income is $£4010 \times 12$		
	$= £48\,120$	B1	
	Taxable income = $£48\,120 - 4895$	M1	
	$= £43\,225$	A1	
(b)	Tax is 10% of £2090	M1	2 or 3 multiplications
	+ 22% of £30310	B1 ✓	At least 2 correct. Must be above £32400 in (a) for 2 to be correct.
	+ 40% of £10825	B1 ✓	10825
	$= £209 + £6668.20 + £4330$	A1 ✓	A1 for any two correct
	$= £11207.20$	A1	Penalise 11207.2 unless in 4b above
	TOTAL	8	

Question 6

	Pay on £310 – 94	M1	
	= £216		
	NI is £216 × 11%	M1 dep	
	£23.76	A1	
	TOTAL	3	

Question 7

(a)	1994	B1	
	4.7%	B1	Accept 4.6 to 4.8% on graph
(b)	1992 – 1994	B2	Accept 1991–1994. 1993-94 B1. Any of 1992, 1993, 1994 B1
	Steepest part of graph	B1	
	TOTAL	5	

Question 8

	283.4 ~ 89.1%	M1	
	Sales were $\frac{283.4}{89.1} \times 100$	M1	
	= £318.1 million	A1	Accept £318 or £318.069 million
	TOTAL	3	

Question 9

	Normal price: 1.80 of cost price		
	Sale price: $\frac{75}{100} \times 1.80$ of cost price	M1	Reduction is $\frac{25}{100} \times 1.80$
	= 1.35 of cost price	A1	= 0.45 or 45%
	Profit = 135 – 100%	M1	Profit is 80 – 45
	= 35%	A1	= 35%
	TOTAL	4	

Question 10

(a)	5000×1.005^6	M1	1.005^6
	$= 5000 \times 1.0303775$	M1	
	$= \text{£ } 5151.89$	A1	
(b)	Interest is £151.89		
	AER is $\frac{151.89}{5000} \times 100$	M1	
	$= 3.04\%$	A1 ✓	Accept 3.03775 From simple interest; (a) £5150 0 marks (b) 3% SC1
	TOTAL	5	
	GRAND TOTAL	50	