

MARK SCHEME for the October/November 2013 series

7101 COMMERCIAL STUDIES

7101/02

Paper 2 (Arithmetic), maximum raw mark 100

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the October/November 2013 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

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	GCE O LEVEL – October/November 2013	7101	02

Section A

1	(a) -12	3	M1 36 or 16 or 64 M1 52 or -48
	(b) 10(.0)	3	M1 36.1 M1 46.1 – “36.1”
	(c) 17	3	M1 $2\frac{5}{6}$ or $\frac{17}{6}$ M1 $\frac{1}{6}$ allow equivalent fractions
2	(a) 0.41	2	M1 0.405(405...) or 0.4(0)
	(b) $\frac{15}{37}$	2	M1 $\frac{75}{185}$ oe
	(c) 41 must be 2sf	3	M1 0.75/1.85 M1 $\times 100$ B1ft their \geq 3sf working to their 2 sf answer
3	(a) $1\frac{1}{4}$ or $\frac{5}{4}$	2	M1 125/100 or 1.25
	(b) 868	2	M1 $14 \times 6200/100$
	(c) 8	3	M1 $6 - 5.52$ M1 “0.48”/6 $\times 100$ or M1 $1 - (5.52)/6$ M1 “0.08” $\times 100$
	(d) 3360	3	M2 $40000 \times 3 \times 2.8/100$ or M1 using $I = PRT/100$
4	(a) 50	6	M1 105600 – 88000 M1 “17600” – 9600 A1 8000 M1 $660 \times “8000”$ dep M1 $\div 105600$
	(b) 197.82	8	M1 10000×10.9369 M1 “109369” $\times 2/100$ M2 109369/10.2029 (or M1 $k / 10.2029$) $k \neq 10000$ M1 “10719.40” $\times 3/100$ M1 “10719.40” – 10000 M1 “719.40” – (“200” + “321.58”) See AG for other versions
5	(a) 628.54	6	M1 20000×1.042 M1 $\times “1.042”$ M1 $\times “1.042”$ (20840 21715.28 22627.32) B1 36 M1 “22627.32” / “36”
	(b) May 14 cao and www	6	B1 correct date (or date shift) column used M1 products M1 \sum products B1 9600 M1 “ Σ ” / “9600”
6	(a) graph	4	P3 -1 eeo C1 smooth curve through (7 or) 8 points
	(b) ft from graph	2 FT	read their graph ± 100 M1 some indication of 0.5 or 6 months used on their graph
	(c) 5000	2	M1 12500 – 7500
	(d) 69.6	4	M1 12500 – 3800 M1 “8700” / 12500 M1 $\times 100$

Page 3	Mark Scheme	Syllabus	Paper
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7	(a) bar chart	4	B1 equal widths B2 all heights correct (B1 5 or 4) B1 labels in correct place
	(b) 1240	4	M2 $\sum xf$ (–1 eeo) M1 $\sum xf$ 180 + 200 + 350 + 120 + 70 + 320
	(c) 1736	2	M1 (b) $\times 1.4(0)$
	(d) 86.8(0)	2	M1 (c) $\times 0.05$ or $\frac{5}{100}$

Section B

8	(a) 96	5	B1 15 B1 14 B1 7 for Sunday M1 “15” $\times 5$ + “14” + “7”
	(b) (i) 800	4	M1 200×5 M1 “1000” $\times 20/100$ M1 “1000” – “200” or M1 $200 \times 20/100$ M1 $200 - “40”$ M1 “160” $\times 5$
	(ii) 912	3	M1 (b)(i) $\times 14/100$ M1 (b)(i) + “112”
9	(a) 20 cao	1	No mention of 15 on answer line
	(b) 19 www	2	M1 20 th or 20.5 th element
	(c) 18.7	4	M1 $\sum xf$ M1 $\sum xf$ M1 $\sum xf / 40$ (= 748/40)
	(d) 95	5	B1 2 seen M1 2/40 M1 $2/40 \times 100$ (= 5) M1 $100 - “5”$ see AG for alternative method
10	(a) (i) 22	2	M1 $21 \times 110/105$
	(ii) 120	2	M1 $24 \times 105/21$ or $24 \times 110 / (a)(i)$
	(b) 32400 cao 43600 cao 66000 cao	8	M1 correct income – correct expenses 1 M1 – correct expenses 2 M1 $k \times 20/100$ (any k) M1 $k - (20/100) \times k$ (same k) M1 $2 + 3 + 5$ soi M1 / 10 M1 their post-tax income $\times 2, 3$ and 5 see AG for other methods
11	(a) (i) 1402.5(0)	4	M1 $5000 \times 27.5/100$ M1 “1375” $\times 2/100$ M1 $1375 + 27.5$ see AG
	(ii) 1.68(3)	2	M1 $84.15 / 5000$
	(iii) 36.5	3	M1 $1806.75 / 0.99$ M1 “1825” / 5000
	(b) 3000	3	M1 $2865 / 95\frac{1}{2}$ M1 $\times 100$