CAMBRIDGE INTERNATIONAL EXAMINATIONS

GCE Ordinary Level

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.

CAMBRIDGE
International Examinations

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** ×100 **B1ft** their ≥ 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 × 6200/100
	(c) 8	3	**M1** 6 – 5.52 **M1** "0.48"/6 × 100 or **M1** 1 – (5.52)/6 **M1** "0.08" × 100
	(d) 3360	3	**M2** 40000 × 3 × 2.8/100 or **M1** using I = PRT/100
4	**(a)** 50	6	**M1** 105600 – 88000 **M1** "17600" – 9600 **A1** 8000 **M1** 660 × "8000" dep **M1** ÷ 105600
	(b) 197.82	8	**M1** 10000 × 10.9369 **M1** "109369" × 2/100 **M2** 109369/10.2029 (or **M1** k / 10.2029) k ≠ 10000 **M1** "10719.40" × 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** × "1.042" **M1** × "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** ∑products **B1** 9600 **M1** "∑"/ "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** × 100

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** xf (–1 eeo) **M1** ∑xf 180 + 200 + 350 + 120 + 70 + 320
	(c) 1736	2	**M1 (b)** × 1.4(0)
	(d) 86.8(0)	2	**M1 (c)** × 0.05 or $\frac{5}{100}$

Section B

8	**(a)** 96	5	**B1** 15 **B1** 14 **B1** 7 for Sunday **M1** "15" × 5 + "14" + "7"
	(b) (i) 800	4	**M1** 200 × 5 **M1** "1000" × 20 /100 **M1** "1000" – "200" or **M1** 200 × 20/100 **M1** 200 – "40" **M1** "160" × 5
	(ii) 912	3	**M1 (b)(i)** × 14/100 **M1 (b)(i)** + "112"
9	**(a)** 20 cao	1	No mention of 15 on answer line
	(b) 19 www	2	**M1** 20th or 20.5th element
	(c) 18.7	4	**M1** xf **M1** ∑xf **M1** ∑xf / 40 (= 748/40)
	(d) 95	5	**B1** 2 seen **M1** 2/40 **M1** 2/40 × 100 (= 5) **M1** 100 – "5" see AG for alternative method
10	**(a) (i)** 22	2	**M1** 21 × 110/105
	(ii) 120	2	**M1** 24 × 105/21 or 24 × 110 / **(a)(i)**
	(b) 32400 cao 43600 cao 66000 cao	8	**M1** correct income – correct expenses 1 **M1** – correct expenses 2 **M1** k × 20/100 (any k) **M1** k – (20/100) × k (same k) **M1** 2 + 3 + 5 soi **M1** / 10 **M1** their post-tax income × 2, 3 and 5 see AG for other methods
11	**(a) (i)** 1402.5(0)	4	**M1** 5000 × 27.5/100 **M1** "1375" × 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 / 95½ **M1** × 100