CAMBRIDGE INTERNATIONAL EXAMINATIONS

GCE Ordinary Level

MARK SCHEME for the October/November 2012 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 2012 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

CAMBRIDGE
International Examinations

Section A

1	**(a)** 8.32(5) or 8.33	3	**M2** $\frac{450\times3.7}{100}\times\frac{6}{12}$ or **M1** $\frac{450\times3.7\times6}{100}$ **SC1** answer 99.9(0)
	(b) 297.48	3	**M2** 8.04 × 37
	(c) 0.13	3	**M1** 3.12 × 0.82 (= 2.5584) dep **M1** subtraction from 2.6884
2	**(a)** 25.5	3	**M1** 2510 – 2000 **M1** "510"/2000 × 100 or **M1** 2510/2000 **M1** "1.255" × 100 – 100
	(b) 332 000	3	**M1** 25 × 1000 **M1** 13.28 × figs 25 or ans figs 332
	(c) 1.108	3ft	**M1** $1\frac{7}{65}$ **A1** 1.1076(92..) **B1** ft from 4dp answer
3	**(a)** 11055.56 or 11055.57	6	**M1** 9000 × 1.042 **M1** "9378" × "1.042" **M1** "977.876" × "1.042" **M1** "10182.29" × "1.042" **M1** "10609.95" × "1.042" Their 1.042 must be consistent for the **M4**
	(b) 9400	6	**M1** 200000 × $\frac{1}{4}$ ÷ 100 **A1** 500 **M1** 800 **M1** 15 × 540 **A1** 8100
4	**(a)** 948.71 or 948.72	5	**M1** 20000/78 **A1** 256.41 **M1** "256.41" × 100 **M1** "25641" × 3.7/100 or **M1** 20000 × 3.7/100 **A1** 740 **M1** "740"/78 **M1** 9.48719 × 100
	(b) **(i)** $1\frac{1}{4}$ or $\frac{5}{4}$	2	**B1** $\frac{125}{100}$ oe
	(ii) 1.25 cao	1	
	(c) 2.41 cao	2	**B1** 2.407(407…)
5	**(a)** bar chart	3	**B1** correct heights **B1** equal widths **B1** correct labels on centre of bars
	(b) 7	1	**B0** if 20 is included on answer line
	(c) 6 www	2	**M1** mention of finding 30th **M1** xf (20, 70, 96, 140, 32)
	(d) 6.07	4	**M1** xf (20, 70, 96, 140, 32) **M1** Σxf **M1** Σxf ÷ 59 (358)
	(e) 1080	2	**M1** 270 × 4

6	**(a) (i)** 3(.00)	1	
	(ii) 6.5(0) to 6.7(0)	1	
	(iii) 3.4 to 3.6	1	
	(iv) 1.2(0) cao	3	**M1** subtracting 2 y-values on the line **M1** dividing by the difference in the corresponding x-values
	(b) (i) 480	3	**M1** 3 + 2 + 5 or 10 **M1** (1600 / 10) × 3
	(ii) 600	3	**M2** 1500 × 2 / 5 or **M1** 1500 / 5
7	**(a)** 293.15	3	**M1** 4.510 × 10 / 100 **M1** "0.451" × 650 or **M1** 650 × 4.51 **M1** "2931.5" × 10 / 100
	(b) 27.64(8) or 27.65	4	**M1** 3.96 × 0.98 **M1** 3.8808 – 3.42 **M1** 0.4608 × 60 or **M1** 60 × 3.96 **M1** 237.60 × 98 / 100 **M1** 232.848 – 60 × 3.42
	(c) 1869. 21	5	**M1** 161 **M1** "161" × 0.86 **M1** 1610 × 1.075 **M1** adding "138.46" and "1730.75"

Section B

8	**(a)** 42240, 28160, 35200	8	**M2** "132000" × 0.8 or **M1** 160000 – 28000 **A1** 105600 **B1** 75000 **M1** 105600 × 30000 / "75000" (6/15) **M1** 105600 × 20000 / "75000" (4/15) **M1** 105600 × 25000 / "75000" (5/15)
	(b) 66	2	**M1** "105600" / 160000 × 100 allow **SC2** 80
	(c) 40	2	**M1** 30000 / "75000" × 100
9	**(a)** 40	5	**B1** 7½ **M1** 5 × "7½" **B1** 2½ **M1** adding 6 days
	(b) 2.5	3	**B1** 1 hour more **M1** 1/40 × 100
	(c) 1042(.72) or 1043	4	**M1** 200 × 0.98 **A1** 196 **M1** "196" × 5.32 or **M1** 5.32 × 0.98 **A1** 5.2136 **M1** 200 × 5.2136 or **M1** 200 × 5.32 **A1** 1064 **M1** "1064" × 0.98
10	**(a)** 100 000	3	**M1** 60 / 360 **M1** 600 000 × 60 / 360
	(b) 210	3	**M1** 350 000 / 600 000 **M1** 360 × 7 / 12
	(c) 72	3	**M2** 360 × 20 / 100
	(d) 1200	3	**M1** 30000 / 20000 **M1** "1.5" × 800
11	**(a)** May 29 cao and www	6	**B1** correct date or date shift column See AG **M1** product of d(ates) and x(money) **B1** Σx = 25690 **M1** Σdx **M1** their Σdx / "25690"
	(b) **(i)** 795	3	**M1** 780 / 104 (= 7.5) **M1** 106 × 780 / 104
	(ii) 110	3	**M1** 825 / 750 **M1** 100 × 825 / 750