UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

GCE Ordinary Level

MARK SCHEME for the October/November 2010 question paper for the guidance of teachers

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 must be read in conjunction with the question papers and the report on the examination.

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UNIVERSITY of CAMBRIDGE International Examinations

1	**(a)** 255.5	3	**M1** 17.5 or 14 3/5 **M1** 14.6 × 17.5 oe
	(b) 44	3	**M1** 5 × 8 **M1** +4
	(c) 33.3	3	**M1** × 1 000 **M1** /3 600
2	**(a)** 0.4 or $\frac{2}{5}$	3	**B1** 76 **M1** 67 – their 76 + 11 or 2
	(b) **(i)** 23.45	1	
	(ii) 23 450 000	2	**M1** × 1 000 000
	(c) 24	3	**M** (3/8(0)) × figs 64 **A1** 0.24 **M1** √ × 100 to answer or **B1** 640 **M1** (3/8(0)) × 640
3	**(a)** **(i)** $\frac{9}{40}$ cao	1	
	(ii) 22.5	2	**M1** **(i)** × 100
	(b) 11	3	**M1** 60 × 75 **M1** 6.5 + "4 500" /1 000 (or **M1** 4 500 + 6 500) **M1** ÷1 000)
	(c) 0.8462 cao	2	**M1** 0.846(1538…)
4	**(a)** 990	2	**M1** 960 × 198/192
	(b) 205	2	**M1** 1 025 × 192/960 or 1025 × (198/(a))
	(c) 6.77	4	**M1** 1 025 – 960 **A1** 65 **M1** /960 (or **M1** 1 025/960 **M1** ×100 **M1** -100
	(d) 1 120	6	**M1** 200 000 × ½ / 100 **A1** 1 000 **M1** 2.5 × 40 **A1** 100 **M1** + 20
5	**(a)** **(i)** 28 cao	1	
	(ii) 29	2	**M1** finding 13th element
	(iii) 29.48	5	**M1** ×f **M1** ∑ × f **A1** 737 **M1** /25
	(b) 56	4	**M1** 11 + 3 **M1** / 25 **M1** × 100

6	**(a)** 7 626	3	**M1** 12 300 × 0.38 **M1** 12 300 – "4 674" (or **M2** 12 300 × 0.62)
	(b) 4 204.73	5	**M1** "7 626" × 0.82 **A1** 6 253.32 **M1** × 0.82 (= 5 127.72) **M1** × 0.82 (or **M3** 7 626 × 0.82^3)
	(c) 1 140	4	**M1** 9 300 × 1.2 **A1** 11 160 **M1** – from 12 300
7	**(a)** 76.40	4	**M1** 260 × 0.14 **M1** 12 × 25 **M1** "336.40" – 260
	(b) 306.80	3	**M1** (260 × 6 × 3)/100 **A1** 46.80
	(c) 10.30	2	**M1** "46.80" × 0.22
	(d) 156	3	**M1** 260 × 0.4 **M1** 260 – "104" or **SC1** 104 (or **M2** 260 × 0.6)

Section B

8	**(a)** 19 920	7	**M1** 85 600 - 19 200 **A1** 66 400 **M1** "66 400" × 0.8 **A1** 53 120 **M1** "53 120" / 80 **M1** "664" × 30 oe
	(b) **(i)** 2 552	2	**M1** 63 800 × 4/100
	(ii) 125 000	3	**M1** c × 4/100 = 5 000 **M1** 5 000 / 0.04
9	**(a)** 176 (nearest whole number)	5	**M1** 150 × 1.20 **A1** 180 **M1** "180" × 0.98 **A1** 176.40 **B1** √ correctly
	(b) 16 700 (3sf required)	7	**M1** 380 - 140 **M1** "240" / 1.20 **A1** 200 **M1** "200" – 2 **M1** "198" × 84.1 (or **M1** 200 × 84.1 **M1** subtract 2 × 84.1) **A1** 16 651.8 **B1** √ to 3sf
10	**(a)** **(i)**	4	**P3** all 6 plots correct (**P2** for 4 or **P1** for 2) **C1** smooth curve through **all** their points
	(ii) 8 000 to 8 500	2	**M1** projecting curve back to year 0 (but not 7 000)
	(iii) 12 700 to 12 900	1	
	(b) 29 439.59	5	**M1** 1.056 **M1** 25 000 × "1.056" (26 400) **M1** × "1.056" (27 878.40) **M1** × "1.056" or **M4** 25 000 (1.056)^3
11	**(a)** 52 www	6	**M1** 80 × 1.9 **M1** "152" × 0.8 **M1** "121.60" - 80 **M1** "41.60" / 80 **M1** "0.52" × 100
	(b) 50	6	**M1** 64.60 / 0.85 **A1** 76 **M1** "76" / 0.8 **A1** 95 **M1** **"95" / 1.9**