UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

GCE Ordinary Level

MARK SCHEME for the October/November 2007 question paper

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.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

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

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International Examinations

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1	**(a)** £1.98	3	**M1** $\frac{450}{1000}$ **M1** × 4.40
	(b) 31.75 or 31¾	3	**B1** 39.1 **B1** 7.35 or **B1** 782/20 **B1** 147/20 oe
	(c) $2800	3	**M1** 6000/15 **M1** 400 × 7 or **M2** (7/15) × 6000
2	**(a)** 1.47	2	**B1** 1.47(0588…) seen **SC1** √ their value to 1dp
	(b) $\frac{17}{25}$	2	**M1** for $\frac{85}{125}$ or $\frac{68}{100}$ or $\frac{34}{50}$ oe <u>fractions</u>
	(c) 125	3	**M1** $\frac{250}{200}$ **M1** × 100
3	**(a)** 54	5	**M1** 8½ **M1** × 5 **M1** + 7½ **M1** + 4
	(b) 352.50	4	**M1** 50 × 0.175 **M1** + 50 **M1** "58.75" × 6 or
	(c) 22.4	2	**M1** $\frac{14}{5}$ × 8 **M1** 50 × 6 **M1** 6 × 50 × 17.5/100 **M1** adding both
4	**(a)** 7281	4	**M1** $\frac{6000 \times R \times 6.1}{100}$ R = 0.5, 3.5, 4, 4.5 or 5 allow 6/12 for 0.5 **M1** uses R = 3.5 or R=4 – R=0.5 **M1** + 6000 (1281) (1464) - (183)
	(b) 7320.86	6	**B1** 1.051 **M1** × 1.051 **A1** 6306 **M1** × 1.051 **=** 6627.61√ **M1** × 1.051 = 6965.61√ or 6000 $(1 + 5.1/100)^4$ **M1 M1 M1 M1 B1** 1.051 The **B1 of** 1.051 can be implied by the answer
5	**(a)** 1005 **cao or** √	5	**M1** 350 x 2.9286 **A1** 1025.01 **M1** 1025.01 x 0.98 **A1** 1004.5098 or 1004.51
	(b) (i) S$18.50	5	**M1** 9 × 0.40 **M1** 15 × 0.50 **M1** + 5 **M1** + 2.40
	(ii) S$ 20.35	2	**M1** "18.50" × 1.1 or "18.50" + "18.50" × 10/100

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6	**(a) (i)** bar chart	4	**B2** all heights correct (**B1** 3 or 4 correct) **B1** equal widths **B1** scales correct
	(ii) 4	1	**M1** 18th term ** **any** working must be correct
	(iii) 5**	2	**M1** 3 × 3 + 4 × 12 etc **A1** 174 **M1** 5 × 36 **A1** 180 **M1** 180 – "174"
	(b) 6**	6	
7	**(a) (i)** 75.60	2	**M1** $73.5 \times \frac{108}{105}$ or $\frac{7938}{105}$ $70 \times \frac{108}{100}$
	(ii) 115	2	**M1** $\frac{80.50}{73.50} = \frac{R}{105}$ or $\frac{8452.5}{73.50}$ or $\frac{80.5 \times 108}{"75.60"}$ oe
	(b) (i) £2190	8	**M1** 400 + 1% of 8000 **A1** 480 **B1** 280 -> 250 **M1** 400 + 2% of 11000 **A1** 620 **M1** 400 + 1% of 4000 **M1** adding all 4
	(ii) 5.92 or 5 + 34/37 cao	2	**M1** "2190"/37000

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Section B

8	**(a)** $199	6	**M1** 40 × 3.50 **A1** 140 **M1** 1800 × 0.02 **A1** 36 **M1** + 18 + 5
	(b) $223.86	6	**M1** 1.30 × 0.8 **A1** 1.04 **M1** 205 × "1.04" **A1** 213.20 **M1** "213.20" × 1.05
9	**(a)** **(i)** 32000	2	**M1** 50 × 640
	(ii) 13500	5	**M1** **A1** 32000 × 0.75 = 24000 **M1** 24000 × 0.75 **M1** 18000 × 0.75
	(iii) 57.8(125)	2	**M1** (32000 – "13500")/32000
	(b) 20	3	**M1** 10125/337 .50 **A1** 30 **or M1** 337.50 × 50 **M1** (16875 – 10125)/337.5
10	**(a)** £ 2043.52	5	**M1** 1600 × 1.24 **A1** 1984 **M1** 1.03 **M1** 1984 × 1.03
	(b) £661.48	7	**M1** 1600 × 5 or 1600 × 0.05 **A1** £80 or 8000**p** **M1** 1600 × 1.65 **A1** £2640 **M1** 2640 + 80 – 15 **M1** - "2043.52"
11	**(a)** 0.7125	2	**M1** 57000/80000
	(b) 104025	2	**M1** 57000 × 1.825
	(c) 60304.35 cao	2	**M1** (b)/1.725
	(d) £46618.(94)	6	**M1** "60304" × 0.7482 **A1** 45119.71 **M1** 80000 – "45119.71" **M1** 34880.29 ÷ 0.7482 **B1** √ profit or **loss**

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