CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge Ordinary Level

MARK SCHEME for the October/November 2015 series

7101 COMMERCIAL STUDIES

7101/21 Paper 2 (Arithmetic), maximum raw mark 100

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

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CAMBRIDGE
International Examinations

1	**(a)**	(0).5385	[2]	**M1** (0). 53 846(....) or 7/13 If 0 scored then **B1** for correct rounding from a ⩾ 4 dp answer
	(b)	26	[2]	**M1** 3⅓ ÷ 100 × 780 oe or M1 for 25.9…
	(c)	56.5	[2]	**M1** 53 seen
2	**(a)**	£0.46 or 46p	[3]	**M1** 2 × 3.12 (= 6.24) **M1** – 5.78 or **M1** 3.12 – 5.78/2 (= 0.23) **M1** *their* 0.23 × 2
	(b)	27.2	[5]	**M1** 650 × 24 × 8 (= 124 800) **M1** 8 × 300 (= 2400) **M1** *their* 124 800 + *their* 2400 (= 127200) **M1** ÷ 1000 or **M1** 650 × 24 (= 15 600) **M1** + 300 (= 15 900) **M1** *their* 15 900 × 8 (=127200) **M1** ÷ 1000 or **M1** 8 × 24 (= 192) **M1** *their* 192 × (450 + 200) **M1** + 8 × 300 **M1** ÷ 1000
3	**(a)**	3.5	[4]	**M1** 8640 – 8337.60 (= 302.40) **M1** *their* 302.40 ÷ 8640 **M1** × 100
	(b) (i)	45	[2]	**M1 (for 4 or 5 out of 5 correct)** 20 + 14 + 7 + 3 + 1
	(ii)	11 001 – 14 500	[2]	**M1** mention of 22 and 23, or 22.5 or *their* 45/2s
4	**(a)**	188	[3]	**M1** 4.7 × 1000 (= 4700) **M1** ÷ 25
	(b)	6.14	[5]	**M1** 4.7 × 55.2 (= 259.44) **M1** ÷ *their* 188 **A1** 1.38 **M1** 7.52 – *their* 1.38 or **M1** 55.20 ÷ 1000 **M1** × 25 (or **M2** 55.2 ÷ 40) **A1** 1.38 **M1** 7.52 – *their* 1.38 or **M1** 4.7 × 55.2 (= 259.44) **M1** 7.52 × *their* (a) (= 1413.76) **M1** *their* 1413.76 – *their* 259.44 (= 1154.32) **M1** *their* 1154.32 ÷ (a)
5	**(a)**	232 000	[4]	**M1** 47500 – 33 000 (= 14500) **M1** *their* 14 500 ÷ 6¼ **M1** × 100
	(b)	295.64	[2]	**M1** 7780 × 3.8 ÷ 100

6	(a)	30	[2]	**M1** 108 ÷ 360 × 100
	(b)	79.2	[3]	**M1** 12100 ÷ 55 000 **M1** × 360
	(c)	11 000	[3]	**M1** 5 ÷ 2 **M1** × 4400 **or M1** 2/10 = 4400 so 1/10 = 2200 **M1** *their* 2200 × 5
	(d)	1858 nfww	[8]	**M1** 560 000 ÷ 10000 × 18 **A1** 1008 **M1** 2/100 × 30 000 **A1** 600 **M1** 1.25/100 × 20 000 **A1** 250 **M1** Adding their 3 values
7	(a)	Option A 1737.5(0)	[11]	**M1** 34 000 × 3¼ ÷ 100 **M1** × 2½ **A1** 2762.50 **M1** 34000 + *their* 2762.50 **A1** 36 762.50 **M1** 30 × 950 (= 28500) **M1** + 10000 **A1** 38 500 **M1** Finding difference between *their* Option A and *their* Option B **B1** Sensible option stated from their results.
	(b)	28 220	[4]	**M1** 100 – 17 **M1** ÷ 100 (= 0.83) **M1** × 34 000 **or M1** 17/100 **M1** × 34 000 (= 5780**) M1** 34 000 – *their* 5780
8	(a) (i)	58.32	[2]	**M1** 162 ÷ 175 × 63
	(ii)	189	[2]	**M1** 100.98 ÷ 93.50 (= 1.08) × 175
	(b)	(0)7:42	[5]	**M1** 286/65 **B1** 4.4 **A1** 4h 24m **M1**12:06 – *their* 4: 24 Or **M1** 286/65 **B1** 4.4 **M1** 12.1 – *their* 4.4 **A1** 7.7
		Section B		
9	(a)	62	[7]	**M1** 5 × 18.60 (= 93) **M1** 5000 ÷ 100 (= 50) **M1** 50 × 0.05 (= 2.50) **M1** *their* 93 + *their* 2.50 (= 95.50) **M1** 50 × 3.15 (= 157.50) **M1** *their* 157.50 – *their* 95.50 or **M1** 5 × 18.6 (= 93) **M1** 5000 ÷ 100 (= 50) **M1** 3.15 – 0.05 **M1** 3.10 × 50 **A1** = 155 **M1** 155 – 93
	(b)	273.75	[5]	**M1** 1700 – 9.30 **A1** 7.5 **M1** 7.5 × 5 (= 37.5) **M1** × 7.30 or **M1A1** as above then 7.30 × 7½ **M1** × 5

10	**(a)**	0.728(4)	[3]	**M1** Adding daily values (= 3.642) **M1** ÷ 5
	(b)	4.17	[9]	**M1** 76 500 ÷ 0.75 **A1** 102 000 **M1** 76 500 ÷ 0.72 **A1** 106 250 **M1** *their* 106250 – *their* 102 000 **A1** 4250 **M1** *their* 4250/their 102 000 × 100 (= 4.1666...) **B1** Rounding a > 3 fig answer correctly to 3 sf
11	**(a)**	4.6	[3]	Allow 4.55 – 4.63 **M1** 1840/400 (Allow 1820 – 1850)
	(b)	Correct ruled straight line	[5]	**M1** 400 × 4.20 oe **A1** 1680 **P1** (400, 1680) plotted – accept plot between 1650 and 1700 **A1** Ruled straight line from (0,0) to (400, *their* 1680)
	(c)	5.2(0)	[4]	**M1** 4.41 ÷ 4.20 **A1** 1.05 **M1** 5.46 ÷ 1.05 or **M1** 4.2 ÷ 4.41 **A1** 0.9523(80 9524) **M1** 0.9523... × 5.46
12	**(a)**	25 000	[3]	**M1** 9 + 5 + 2 (= 16) **M1** 80 000 ÷ *their* 16 × 5
	(b)	1987.53	[8]	**M1** 80 000 × 1.045 (= 83 600) **M1** 83 600 × 1.045 (= 87 362) **M1** 87 362 × 1.045 (= 91 293.29) **M1** 91 293.29 × 1.045 **B1** 95 401.48(805) or 95 401.49 **M1** *their* 95 401.48 ÷ 48 **A1ft** 1987.53(1042) If final A1 not awarded then **B1** for rounding a ⩾ 3 dp answer to 2 dp
	(c)	White	[1]	500 000 scores 0