CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge Ordinary Level

MARK SCHEME for the October/November 2014 series

7101 COMMERCIAL STUDIES

7101/21 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.

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1	**(a)**	17	[3]	**M1** 18 **M1** 7 + 18 – 8 or 25 – 8 or 7 + 1[illegible] or –1 +18
	(b)	40.21	[2]	**M1** 2.41
	(c)	$\frac{1}{3}$ cao	[4]	**M1** 7/24 **M1** 21/24 (or 7/8) **M1**"7/24" × "24/21" oe
2	**(a)**	0.267 cao	[2]	**M1** 0.266..... or 4/15 oe
	(b)	101 000	[2]	**M1** 100 800 oe or 10.1×10^4 oe
	(c)	25.5	[3]	**M1** 300 × 85 [= 25 500] **M1** ÷ 1000
3	**(a)**	L 175, GL 65, GLS 120	[7]	Deduct 1 mark if correct angles in wrong order, unless TE applies **M1** 70 + 26 + 48 (=144) **M1** 70/"144" × 360 **M1** 26/"144" × 360 **M1** 48/"144" × 360 (or 360 – 2 angles) **A1, A1, A1** each of correct answer (A marks imply corresponding M1)
	(b)	8763.2(0)	[6]	**M1** 7800 – 3500 [=4300] **M2** their 4300 × 0.112 x 2 or **M1** for two of the three multiplied **A1** 963.20 **M1** 7800 + their interest
4	**(a)**	163 000	[3]	**M1** $\sum$salaries [815 000] **M1** ÷ 5
	(b)	10 374 000	[2]	**M1** 420 × 24 700
	(c)	25 688	[2]	**M1** 156/150 [= 1.04] × 24 700
5	**(a)**	15 www	[4]	**M1** 9, 12, 13, 14, 14, 16, 17, 19, 20, 20 or reverse **M1** Identify *their* two 'middle' values (=14 & 16) **M1** Find mean of their two middle values
	(b) (i)	199.8(0)	[3]	**M2** 1.11 × 180 or **M1** 11/100 × 180
	(ii)	160	[3]	**M1** 220 – 180 (=40) **M1** x4
	(iii)	15	[3]	**M1** 2.53 – 2.20 (=0.33) oe **M1** their 0.33/2.20 × 100 oe **Or** **M1** (2.53/2.20) × 100 [=115] **M1** – 100

6	(a)	480	[7]	**M1** 290 000/1000 × 1.60 (=464) **M1** 0.12/100 × 30 000 **A1** 36 **M1** their 464 + their 36 (=500) **M2** their 500 × 0.96 or **M1** 500 × 0.04
	(b)	42.6(0)	[4]	**M2** their (a) × 1.065 or **M1** 6.5/100 × (a) **M1** their 511.20/12 but **dep M2 or M1** or **M1** their (a)/12 (=40) **M2** their 40 × 1.065 or **M1** their 40 × 6.5/100
7	(a) (i)	24.5	[1]	
	(ii)	Feb, Nov	[2]	**B1** for 1 correct
	(iii)	26	[1]	
	(iv)	Jan, Feb	[2]	**B1** for 1 correct
	(v)	10.5	[2]	Accept 10.25 to 10.75 **M1** their **(a)(i)** – 14 evaluated
	(b)	4754.75	[4]	**M2** 6500 × 0.77 or **M1** 6500 × 0.23 (=1495) **M1** "5005" × 0.95 If 0 scored SC2 6500 × 0.72 or SC1 6500 × 0.28
	(c)	56	[4]	**M1** 1445 – 0900 **M1** 5.75 **M1** 322 divided by their time
		SECTION B		
8	(a)	2.3, 2.55, 2.8	[3]	Allow 2.53 to 2.57 B1 for each correct
	(b)	125	[3]	**M1** 4.05 [× 10^6] – 1.8 [× 10^6] (=2.25 [× 10^6]) **M1** their 2.25/1.8 × 100
	(c)	1.6 www	[2]	**M1** 1.8/1.125
	(d)	516 698 000	[2]	**M1** 3.25 × (10^6)× 158.984
	(e)	6000	[2]	**M1** 499 200/83.2
9	(a) (i)	20 000	[2]	**M1** 844 000/42.2
	(ii)	91 770	[4]	**M1** 3000 + 6500 + 8200 (=17 700) **M1** 20 000 – their 17 700 (=2300) **M1** their 2300 × 39.9
	(b)	171.69	[2]	**M1** their 17 700/100 × 0.97
	(c)	12 20 (pm)	[4]	**M1** 20.30 + 11.50 (=32.20) **M1** their 32.20 – 24 00. **M1** + 4

10 (a)	£83 879	[5]	**M1** 75 000 × 1.038 o.e. (=77 850) **M1** their 77 850 × 1.038 (=80 808.30) **M1** their 80 808.30 X 1.038 Or **M3** $75\,000(1 + 3.8/100)^3$ **B1** 83 879. 0... (ft their B1 to nearest pound)
(b) (i)	£52 720	[3]	**M1** 86 000 – 20 100 (=65 900) **M1** × 0.8 oe
(ii)	£21 088	[3]	**M1** 176/440 oe **M1** × their (b)(i)
(c)	Apple	[1]	140 scores 0
11 (a)	$29 408	[4]	**M1** 0.038 × 116 000 oe **A1** 4408 **M1** their 4408 + 25 000
(b)	$27 126.40 cao	[8]	**M1** their 29 408 – 12 000 (=17 408) **M1** 0.05 × 8 000 **A1** 400 cao **M1** "17 408" – 8000 (=9 408) **M1** their 9408 × 0.2 oe **A1** 1881.60 ft **M1** (a) – (400 + their 1 881.60)