

**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.

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

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

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