

CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge Ordinary Level

MARK SCHEME for the October/November 2014 series

7101 COMMERCIAL STUDIES

7101/22

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]	M1 18 M1 7 + 18 – 8 or 25 – 8 or 7 + 10 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 × 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 <i>their</i> 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

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6	(a)	480	[7]	M1 $290\,000/1000 \times 1.60$ (=464) M1 $0.12/100 \times 30\,000$ 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) $\times 1.065$ or M1 $6.5/100 \times$ (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 $40 \times 6.5/100$
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” $\times 0.95$ 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 $4.05 [\times 10^6] - 1.8 [\times 10^6]$ (=2.25 $[\times 10^6]$) M1 their $2.25/1.8 \times 100$
	(c)	1.6 www	[2]	M1 1.8/1.125
	(d)	516 698 000	[2]	M1 $3.25 \times (10^6) \times 158.984$
	(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 $17\,700/100 \times 0.97$
	(c)	12 20 (pm)	[4]	M1 $20.30 + 11.50$ (=32.20) M1 their $32.20 - 24\,00$. M1 + 4

Page 4	Mark Scheme	Syllabus	Paper
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10 (a)	£83 879	[5]	M1 $75\,000 \times 1.038$ o.e. (=77 850) M1 their $77\,850 \times 1.038$ (=80 808.30) M1 their $80\,808.30 \times 1.038$ 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 $\times 0.8$ oe
(ii)	£21 088	[3]	M1 $176/440$ oe M1 \times their (b)(i)
(c)	Apple	[1]	140 scores 0
11 (a)	\$29 408	[4]	M1 $0.038 \times 116\,000$ oe A1 4408 M1 their $4408 + 25\,000$
(b)	\$27 126.40 cao	[8]	M1 their $29\,408 - 12\,000$ (=17 408) M1 $0.05 \times 8\,000$ 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)