Cambridge Checkpoint

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
Cambridge Checkpoint

MATHEMATICS **1112/02**

Paper 2 **For Examination from 2012**

SPECIMEN MARK SCHEME

1 hour

MAXIMUM MARK: 50

This document consists of **5** printed pages and **1** blank page.

UNIVERSITY of CAMBRIDGE International Examinations

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Question	1		
Part	**Mark**	**Answer**	**Further Information**
(a)	1	30	
(b)	2	32	1 mark for their total ÷ 9 seen
Total	3		

Question	2		
Part	**Mark**	**Answer**	**Further Information**
(a) (i)	1	9 (litres)	
(ii)	1	0.5 (litres)	
(b)	2	3 : 1 : 2	1 mark for 1500 : 500 : 1000 or better seen: Do not accept: 1.5 : 0.5 : 1
(c)	2	720	1 mark for 450 ÷ 5 or 90 seen
Total	6		

Question	3		
Part	**Mark**	**Answer**	**Further Information**
(a) (i)	1	80	
(ii)	2	5	1 mark for $100 = 35 + 15h$ or 75 seen
(b)	2	$\frac{k+2}{3}$ [or equivalent]	1 mark for $k + 2 = 3m$ seen or $\frac{k-2}{3}$ or $k+\frac{2}{3}$ as answer
Total	5		

Question	4		
Part	**Mark**	**Answer**	**Further Information**
(a) (i)	1	15 18	
(ii)	1	3.18 pm [or follow through answer from **(a) (i)**]	Award mark for their time from **(i)** written in 12-hour clock. Must include pm
(b)	1	19 (minutes)	
(c)	2	40 (km/h)	1 mark for 10 ÷ 0.25 [or equivalent]
Total	5		

Question	5		
Part	**Mark**	**Answer**	**Further Information**
(a)	1	(3, 2) marked	
(b)	1	(–3, 3)	
(c)	1	C drawn correctly	
(d)	2	90° clockwise centre (0, 0)	Or 270° anticlockwise. Answer must include both angle and direction.
Total	5		

Question	6		
Part	**Mark**	**Answer**	**Further Information**
(a)	1	14, 17	both correct
(b)	1	32	
(c)	2	3*p* + 2 [or equivalent]	1 mark for expression with 3*p*
(d)	1	Reason to show why 60 is not in the sequence e.g. Pattern 19 is 59 and pattern 20 is 62. None of the numbers are in the 3 times table and 60 is. 60 counters is pattern 19 1/3	Award 0 for answers such as: Pattern 60 uses 182 counters. It takes too long to draw.
Total	5		

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Question	7		
Part	**Mark**	**Answer**	**Further Information**
(a)	1	15.6	
(b)	2	4, 3 and 2 seen – 1 mark 24 (cm^3) – 1 mark	any order, all correct
(c)	2	39.(26990…)	For 2 marks allow any rounding or truncating of 39.26990… 1 mark for $\frac{1}{2} \times \pi \times 5^2$
Total	5		

Question	8		
Part	**Mark**	**Answer**	**Further Information**
(a)	1	\$1380	
(b)	2	20 (%)	1 mark for $\frac{48}{240} \times 100$
(c)	2	(\$) 156	1 mark for $150 \times \frac{104}{100}$ **or** $150 + 150 \times \frac{4}{100}$ [or equivalent] **or** \$6 seen
Total	5		

Question	9		
Part	**Mark**	**Answer**	**Further Information**
	3	Arc radius 7 cm centre *A* – 1 mark Line 2 cm from *AB* – 1 mark Intersection labelled *T* – 1 mark	Tolerance ± 2mm (Make and use overlay.)
Total	3		

Question	10		
Part	**Mark**	**Answer**	**Further Information**
(a)	1	All cells completed correctly.	
(b) (i)	1	$\frac{1}{25}$ or 0.04 or 4%	Award marks in **(b)** and **(c)** if answers follow through correctly from answers given in table.
(ii)	1	0	[Follow through answers given in table.]
(c)	2	$\frac{2}{5}$	[Follow through answers given in table.] 1 mark for $\frac{10}{25}$ or 0.4 or 40%
Total	5		

Question	11		
Part	**Mark**	**Answer**	**Further Information**
	3	Correctly stating Pythagoras' Theorem – 1 mark $40^2 + 25^2 = 1600 + 625 = 2225$ – 1 mark 47.(16990…) – 1 mark	 Allow any rounding or truncation of the correct answer 47.16990…
Total	3		

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