CAMBRIDGE INTERNATIONAL MATHEMATICS	**0607/21**
Paper 2 (Extended)	**October/November 2016**
MARK SCHEME	
Maximum Mark: 40	

Published

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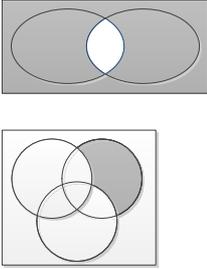
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Abbreviations

awrt   answers which round to
cao   correct answer only
dep   dependent
FT   follow through after error
isw   ignore subsequent working
oe   or equivalent
SC   Special Case
nfww   not from wrong working
soi   seen or implied

Question		Answer	Mark	Part Marks
1		60	2	**M1** for $48 \div 4$ oe
2		A, H, N	2	**B1** for two correct
3	(a)	11	1	
	(b)	14	1	
	(c)	16	1	
4		0.00407	1	
5	(a)	3.5 oe	2	**M1** for $5 + (-1)(1.5)$ or better
	(b)	$\dfrac{v-u}{t}$ oe final answer	2	**M1** for correct rearrangement for term in a **M1** for correct division by t
6		$\dfrac{1}{2}$	3	**B2** for $\dfrac{9}{18}$ or **B1** for $\dfrac{16}{18}$ oe
7		90	3	**M2** for $\dfrac{360}{180-176}$ or $180(n-2)=176n$ or **M1** for $180-176$ or $\dfrac{180(n-2)}{n}$ [$=176$]
8		50	3	**M2** for $180 - 100 - 0.5(180 - 120)$ or **M1** for angle $ADC = 80$ or angle $ADO = 30$ allow seen in correct place on diagram
9			2	**B1** for each

Question	Answer	Mark	Part Marks
10	$4 + 3\sqrt{3}$ final answer	**2**	**B1** for $2\sqrt{3}\sqrt{3} + 2.2\sqrt{3} - \sqrt{3} - 2$ oe
11	2 4	**2**	**B1** for each
12	$\dfrac{1}{125}$	**2**	**B1** for 2 correct uses of index notations e.g. 125 or $\dfrac{1}{5}$ or $\dfrac{1}{15\,625}$ seen or **M1** for $\dfrac{1}{\left(\sqrt{25}\right)^3}$
13	$\sqrt{3}$ or $3^{\frac{1}{2}}$	**2**	**M1** for $3^{\frac{4}{8}}$ or $x^2 = 3$ or **B1** for $\sqrt[8]{81}$ oe
14	$[a =\,] -3$ $[b =\,] -10$	**3**	**M1** for $(x-5)(x+2)[=0]$ or for $0 = 25 + 5a + b$ and $0 = 4 - 2a + b$ **A1** for a or b correct
15	$\dfrac{6}{\sqrt{x-3}}$ final answer	**2**	**M1** for $y = \dfrac{k}{\sqrt{x-3}}$
16	$[a =\,] 2$ $[b =\,] 4$	**2**	**B1** for each
17 **(a)**	9	**1**	
(b)	$\dfrac{5}{2}$ oe	**1**	

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