Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CAMBRIDGE INTERNATIONAL MATHEMATICS **0607/21**

Paper 2 (Extended) **October/November 2016**

MARK SCHEME

Maximum Mark: 40

Published

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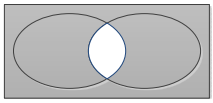
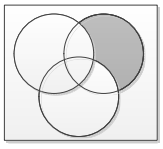
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Abbreviations

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 ÷ 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)	$\frac{v-u}{t}$ oe final answer	**2**	**M1** for correct rearrangement for term in a **M1** for correct division by t
6	$\frac{1}{2}$	**3**	**B2** for $\frac{9}{18}$ or **B1** for $\frac{16}{18}$ oe
7	90	**3**	**M2** for $\frac{360}{180-176}$ or $180(n-2)=176n$ or **M1** for 180 – 176 or $\frac{180(n-2)}{n}$ [= 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

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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	$\frac{1}{125}$	**2**	**B1** for 2 correct uses of index notations e.g. 125 or $\frac{1}{5}$ or $\frac{1}{15625}$ seen or **M1** for $\frac{1}{\left(\sqrt{25}\right)^3}$
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	$\frac{6}{\sqrt{x-3}}$ final answer	**2**	**M1** for $y = \frac{k}{\sqrt{x-3}}$
16	[a =] 2 [b =] 4	**2**	**B1** for each
17 (a)	9	**1**	
(b)	$\frac{5}{2}$ oe	**1**	

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