



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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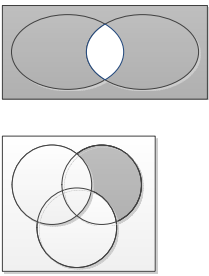
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Abbreviations

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 $48 \div 4$ 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)	$\frac{v-u}{t}$ 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

Page 3	Mark Scheme	Syllabus	Paper
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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	$\frac{2}{4}$	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 $\frac{1}{(\sqrt{25})^3}$
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	