CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the October/November 2015 series

0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/21 Paper 2 (Extended), maximum raw mark 40

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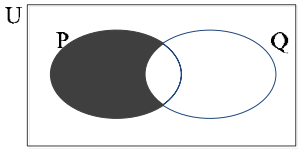
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Abbreviations

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	$\frac{1}{4}$	**2**	**M1** for $\frac{7}{12}-\frac{4}{12}$ oe or better e.g. $\frac{3}{12}$
2	43.2	**2**	**M1** for $12 \times 60 \times 60 \div 1000$ oe
3 (a)	4.8×10^{-5}	**1**	
(b)	1.2×10^{16}	**2**	**B1** for correct non standard form answer
4	340	**2**	**M1** for $17 \div 0.05$ oe
5	$2\sqrt{3}$	**2**	**B1** for $5\sqrt{3}$ or $3\sqrt{3}$ or **M1** for $\sqrt{25} \times \sqrt{3} - \sqrt{9} \times \sqrt{3}$
6 (a)	2	**1**	
(b)	$\frac{v-u}{t}$ oe	**2**	**M1** for correctly isolating the term in a **M1** for correct division by t
7	8	**3**	**M2** for $\sqrt{17^2-15^2}$ or better or **M1** for $AC^2 + 15^2 = 17^2$ oe or better
8 (a)	13	**1**	
(b)	36	**2**	**M1** for 164 seen or indicated
9 (a)	0.008 or $\frac{1}{125}$ oe	**1**	
(b)	2	**1**	
(c)	16	**1**	
(d)	$\frac{1}{2}$ or 0.5	**1**	
10	$[x =]$ 50	**1**	
	$[y =]$ 130	**1FT**	180 – *their x*

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Question	Answer	Mark	Part Marks
11	$[p =]\ \frac{1}{2}$ or 0.5	**2**	**M1** for gradient = $\frac{2}{4}$ oe
	$[q =]$ 2	**1**	
12 (a)	4	**1**	
(b)		**1**	
13	$y = -\frac{4}{3}x + 7$ oe	**4**	**B1** for midpoint (0, 7) **M1** for gradient of $AB = \frac{10-4}{4--4}$ or better **M1** for gradient = $\frac{-1}{\text{gradient of } AB}$
14 (a)	$[y =]\ \frac{9}{\sqrt{x}}$	**2**	**M1** for $\frac{k}{\sqrt{x}}$ oe
(b)	1	**1FT**	Only FT incorrect k
15	$[a =]$ 3	**1**	
	$[b =]$ 2	**1**	Allow $2k$, k integer $\neq 0$

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