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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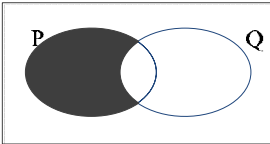
Abbreviations

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		$\dfrac{1}{4}$	2	**M1** for $\dfrac{7}{12}-\dfrac{4}{12}$ oe or better e.g. $\dfrac{3}{12}$
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)	$\dfrac{v-u}{t}$ 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 $\dfrac{1}{125}$ oe	1	
	(b)	2	1	
	(c)	16	1	
	(d)	$\dfrac{1}{2}$ or 0.5	1	
10		[$x =$] 50	1	
		[$y =$] 130	1FT	$180 - their\ x$

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