UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the May/June 2012 question paper for the guidance of teachers

0607 CAMBRIDGE INTERNATIONAL MATHEMATICS

0607/05

Paper 5 (Core), maximum raw mark 24

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

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Qu.	Answer	Mark	Notes		Con	nments
1	(1, 2, 3) (1, 3, 4) (1, 4, 5) (2, 3, 5) (1, 5, 6) (2, 4, 6) (1, 6, 7) (2, 5, 7)	3	B1 for 4 or 5 B2 for 6 or 7	First	two numbe	rs can be swapped
2	(1, 2, 3) (1, 3, 4)	1	cao			
	(1, 2, 3) (1, 3, 4) (1, 4, 5) (2, 3, 5)	2	cao B1 for any 3			
	(1, 2, 3) (1, 3, 4) (1, 4, 5) (2, 3, 5) (1, 5, 6) (2, 4, 6)	2	cao B1 for any 5			
	(1, 2, 3) (1, 3, 4) (1, 4, 5) (2, 3, 5) (1, 5, 6) (2, 4, 6) (1, 6, 7) (2, 5, 7) (3, 4, 7) (1, 7, 8) (2, 6, 8) (3, 5, 8)	2	B1 for any 10	settinascenand first	ng: nding order	for systematic within each triple pers in order (after us set)
3	4 5 6 7 8 9 10 2 4 6 9 12 16 20	11 12 25 30	13 14 15 36 42 49	2	B1 for 3	ft the numbers from their table unless wrongly counted.
4	3 5 7 9 11 1 = 1 ² [4=] 2 ² 3 ² 4 ² [25=]		15 17 6 ² [49=]7 ² [64=]8 ²	2	B1 for 3	
5	21	2	B1 10 ² soi	Table OR 3	munication e extension $\sqrt{100} = 10$ or 2 = 20 OR	

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6 (a) (b)	Yes, $15^2 = 225$ soi Is not a square	1	M1 948.6	Accept Yes, 31 [integers] OR Yes, √225 is a whole number OR Yes, 225 is a square
		2	SC1 √900000 does not exist OR does not have a square root oe	Accept $\sqrt{900}$ 000 is a not whole number OR 900 000 is not 300^2 and not 3000^2 OR does not have an exact square root OR is a decimal OR 900000 is in between 898704 = 948 ² and 900601 = 949 ²
7 (a)	2401	2		Accept 49 ²
(b)	2450 cao	2	M1 for 49 or 49.5 soi M1 $50^2 - 50$ oe soi OR $49^2 + 49$ OR their $2401 + 49$	Communication: $98/2 = 49$ or $99/2 = 49.5$ and $49^2 = 2401$ OR correct table extension!
	Communication	1		Communication seen in questions 2, 5 or 7(a)