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CCP

HALF YEARLY EXAMINATION – 2017/2018

YEAR 10

MATHEMATICS

MARKING SCHEME

Notes for Marking of Scripts

Types of Marks

Method marks are awarded for knowing a correct method of solution and attempting to apply it. Method marks cannot be lost for arithmetic mistakes. They can only be awarded if the method used would have led to the correct answer had not an arithmetic mistake been made. Unless otherwise stated, any valid method not specified in the marking scheme is to be accepted and marked accordingly.

There are two types of Method marks, **M** marks and **(M)** marks.

- **M marks**, are only awarded if method is seen.
- **(M) marks** are awarded even when a correct answer is given and no work is shown.

There are two types of Accuracy marks, **A** marks and **B** marks.

- **A** marks are accuracy marks given for correct answer only (c.a.o.).
 - * Incorrect answers, even though nearly correct, score no marks.
 - * Accuracy marks are also awarded for incorrect answers which are correctly followed through (f.t.) from an incorrect previous answer, **provided that f.t. is indicated in the marking scheme.**
 - * No Method marks **M/(M)** or Accuracy marks **A**, are awarded when a wrong method leads to a correct answer.
 - * When a question is assigned **M** and **A** marks and students present a correct answer without any working, only **A** marks are awarded.
- **B** marks are accuracy marks awarded for specific results or statements independent of the method used.

Misreading

Method marks can still be earned (unless that part of the question is trivialized) but the final Accuracy marks are lost.

Crossed out working

An answer or working that is crossed out and not replaced is marked as if it were not crossed out. If the answer or working is replaced, then the crossed out answer or working is ignored and should not be considered for marking.

Units

In general, missing or inaccurate units are not penalised unless otherwise indicated in the marking scheme.

Other

- Incorrect working or statement following a correct answer is ignored.
- Marks are not sub-divisible; no half marks may be awarded.
- Other abbreviations used:
 - * o.e. (or equivalent)
 - * e.e.o.o. (each error or omission)
- Markers are advised to indicate the **M**, **(M)**, **A** or **B** marks awarded in the body of the script and then write their total in the margin. The total mark for each question should be written in the table included at the top of page 1 of the main paper. This measure facilitates the moderation of papers.

Non-Calculator Paper (25 marks)

Quest.		Requirements	Mark	Additional Guidance	
1	a)	35000	B1		3
	b)	833.2	B1		
	c)	3.728	B1		
2	a)	10,024	B1		3
	b)	4 thousand (4000)	B1		
	c)	$\frac{4}{10}$ or equivalent	B1		
3	a)	110	(M)1 A1		7
	b)	22.56	(M)1 A1		
	c)	5	B1		
	d)	24	(M)1 A1		
4	a)	21:45	B1		3
	b)	Subtraction or adding on implied 30 minutes	(M)1 A1		
5	a)	70	B1		4
	b)	30	B1		
	c)	70×30 2100	M1 A1 f.t.		
6	a)	$12.34 - 2.56$ $= 9.78$	M1 A1		5
	b)	$\frac{25}{100}$ seen or implied 25×6 or $600 \div 4$ $= €150$	(M)1 M1 A1		

Main Paper (75 marks)

Quest.		Requirements	Mark	Additional Guidance	
1	a)	7×60 seen or implied 420 sec	(M1) A1		8
	b)	5×1000 5000	(M1) A1		
	c)	365	B1		
	d)	366	B1		
	e)	$523 \div 100$ 5.23	(M1) A1		
2	a)	Correct shading	B2	Award B1 for at least 2 correct	8
	b)	$\frac{2}{4} + \frac{2}{4} = \frac{4}{4}$ =1 (o.e.)	(M)1 A1	Common denominator seen or implied	
	c)	$\frac{2}{4} + \frac{1}{4}$ $= \frac{3}{4}$	(M)1 A1		
	d)	$\frac{2}{8} + \frac{2}{8} + \frac{1}{8}$ $= \frac{5}{8}$	(M)1 A1	Common denominator seen or implied	
3	a)	Correct shading	B1		5
	b)	Saturday	B1		
	c)	5	B1		
	d)	4	B1		
	e)	Friday	B1		
4	a)	i) <u>23, 27</u>	B1 B1		14
		ii) <u>13, 7</u>	B1 B1		
		iii) <u>32, 64</u>	B1 B1		
	b)	i) 5, 12, 19, 26, 33 ii) 81, 51, 21	B2 B2	– 1 e.e.o.o.	
	c)	i) starts with 24 then subtract 3 ii) start with 23 then add 11	B1 B1 B1 B1		

5	a)	0.723, 7.23, 72.3, 723, 7230, 72300	B3	B1 1 st correct B1 last correct B1 all correct	6
	b)	905, 667, 624, 290, 203, 58	B3	B1 1 st correct B1 last correct B1 all correct	
6	a)	i) 3000 ii) 80 iii) 500	B1 B1 B1		7
	b)	$\frac{2934 \times 78}{519} \approx \frac{3000 \times 80}{500}$ = 480	(M1) A1	 f.t.	
	c)	i) 440.947 ii) 441	M1 A1	 f.t.	
7	a)	2.5×1000 2500	(M1) A1		5
	b)	$2500 \div 150$ 16.666 16	(M1) M1 A1		
8	a)	Adding up all values 839	(M1) A1		4
	b)	$75 + 75 + 75 + 80 + 80 + 92 + 92 + 105 = 674$ $\therefore 8$ persons	M2	Or equivalent	
9	a)	Screw driver €5.65 3 boxes screws $1.25 \times 3 =$ €3.75 20 ties $1.30 \times 2 =$ €2.60 <u>Drilling set €40.00</u> Total €52.00 Discount $\frac{10}{100} \times 52 =$ €5.20 Subtraction Total amount due: €46.80	M1 A1 M1 A1 B1 A1 M1 A1 M1 A1	 f.t. f.t.	13
		b)	1 st option (enough money) $50 - 46.80 = €3.20$	B1 M1 A1	f.t.
10	a)	$\frac{20}{100} \times 200$ = €40	M1 A1		5
	b)	$200 + 25 + 40$ = €265	M1 M1 A1		