

Candidate forename						Candidate surname					
Centre number						Candidate number					

OXFORD CAMBRIDGE AND RSA EXAMINATIONS AS GCE

4771

MATHEMATICS (MEI)

Decision Mathematics 1

PRINTED ANSWER BOOK

THURSDAY 31 MAY 2012: Morning

DURATION: 1 hour 30 minutes
plus your additional time allowance

MODIFIED ENLARGED

Candidates answer on the Printed Answer Book.

OCR SUPPLIED MATERIALS:

Question Paper 4771 (inserted)

MEI Examination Formulae and Tables (MF2)

OTHER MATERIALS REQUIRED:

Scientific or graphical calculator

READ INSTRUCTIONS OVERLEAF

INSTRUCTIONS TO CANDIDATES

These instructions are the same on the Printed Answer Book and the Question Paper.

- **The Question Paper will be found in the centre of the Printed Answer Book.**
- **Write your name, centre number and candidate number in the spaces provided on the Printed Answer Book. Please write clearly and in capital letters.**
- **WRITE YOUR ANSWER TO EACH QUESTION IN THE SPACE PROVIDED IN THE PRINTED ANSWER BOOK.** Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- **Use black ink. HB pencil may be used for graphs and diagrams only.**
- **Read each question carefully. Make sure you know what you have to do before starting your answer.**
- **Answer ALL the questions.**
- **You are permitted to use a graphical calculator in this paper.**
- **Final answers should be given to a degree of accuracy appropriate to the context.**

INFORMATION FOR CANDIDATES

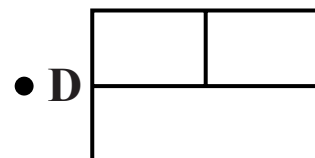
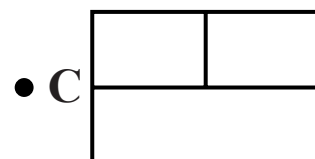
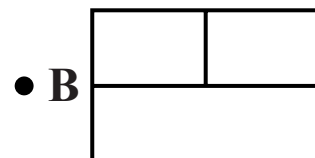
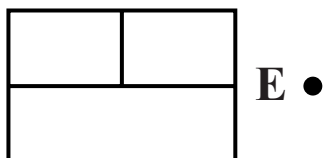
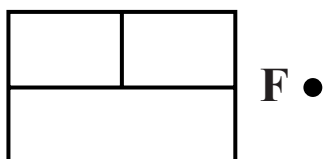
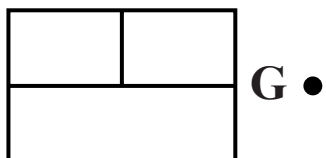
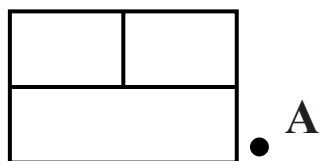
This information is the same on the Printed Answer Book and the Question Paper.

- **The number of marks is given in brackets [] at the end of each question or part question on the Question Paper.**
- **You are advised that an answer may receive NO MARKS unless you show sufficient detail of the working to indicate that a correct method is being used.**
- **The total number of marks for this paper is 72.**

SECTION A (24 marks)

1 (i) & (ii)	<div><div><div></div><div></div></div><div></div></div> <div>• A</div>	
	<div><div><div></div><div></div></div><div></div></div> <div>G •</div>	<div>• B</div> <div><div><div></div><div></div></div><div></div></div>
	<div><div><div></div><div></div></div><div></div></div> <div>F •</div>	<div>• C</div> <div><div><div></div><div></div></div><div></div></div>
	<div><div><div></div><div></div></div><div></div></div> <div>E •</div>	<div>• D</div> <div><div><div></div><div></div></div><div></div></div>
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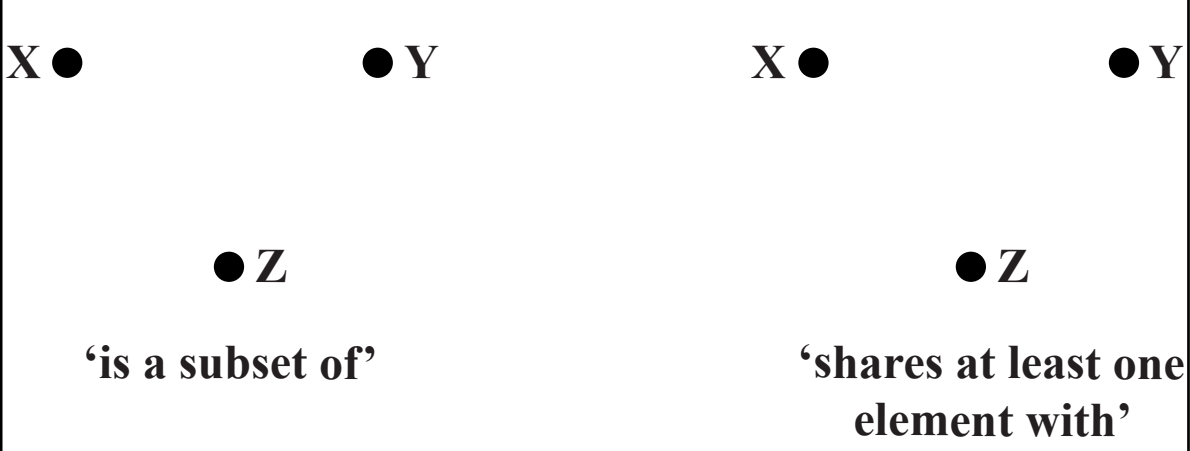
SPARE COPY OF DIAGRAM FOR 1(i)



2 (i)

A	L	R	B	f(L)	f(R)

2 (ii)	
2 (iii)	

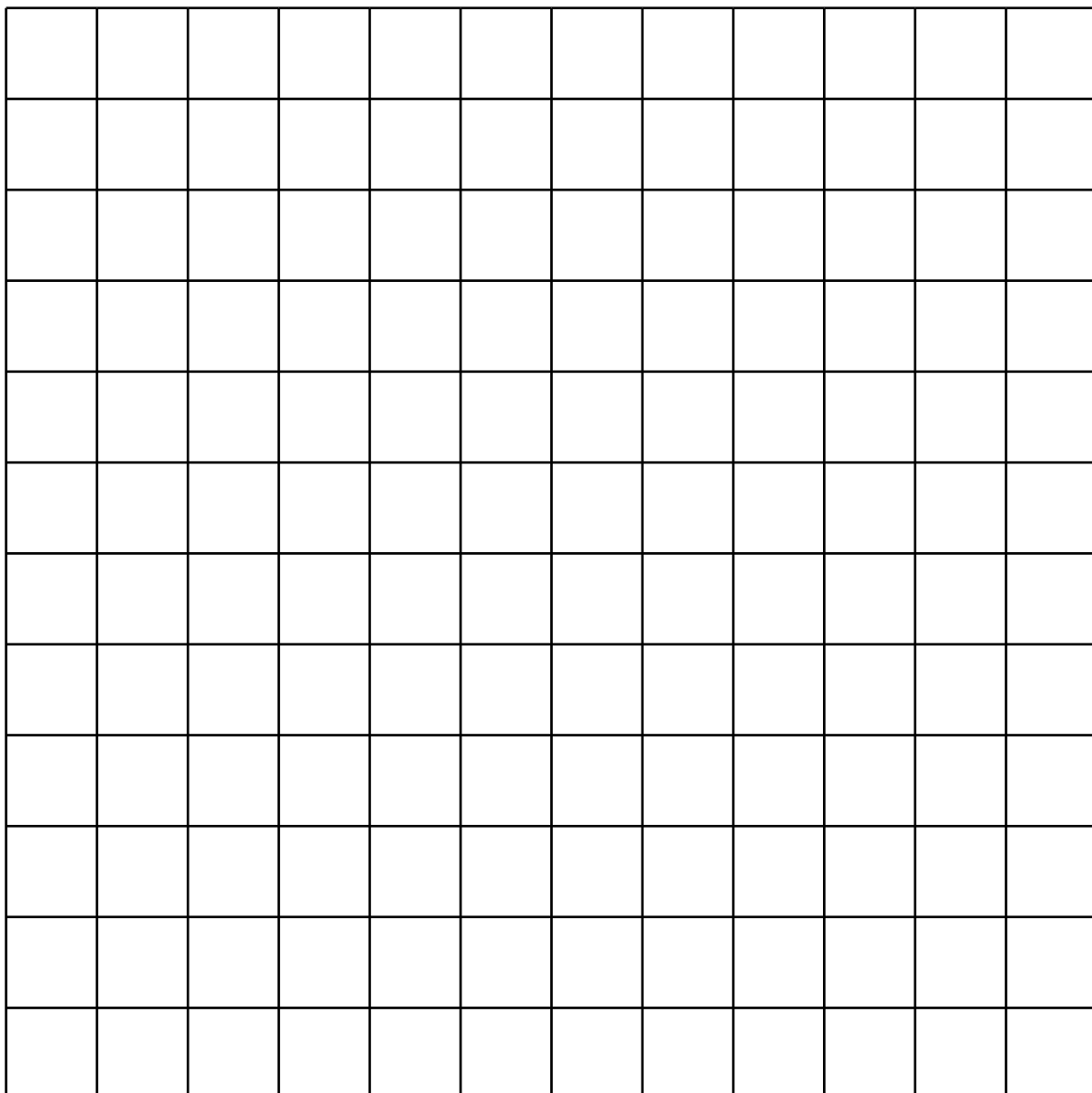
<p>3 (i)</p>	 <p>The left diagram shows three sets: X, Y, and Z. X and Y are represented by two overlapping circles. Z is represented by a circle entirely contained within the region of X and Y. Below the diagram is the text: 'is a subset of'.</p> <p>The right diagram shows three sets: X, Y, and Z. X and Y are represented by two overlapping circles. Z is represented by a circle that overlaps with the region of X and Y, but is not entirely contained within it. Below the diagram is the text: 'shares at least one element with'.</p>
<p>3 (ii)</p>	

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SECTION B (48 marks)

4 (i)	

4 (ii)



**A SPARE COPY OF THIS GRAPH PAPER CAN BE
FOUND ON PAGE 19**

4 (iii)	
4 (iv)	

5 (i)	
5 (ii)	
5 (iii)	Random digits: 5, 9, 4, 0, 8, 1, 9, 3, 0, 5

5 (v)	

6 (i) & (ii)	

6 (iii)	
6 (iv)	
6 (v)	

6 (vi)	

SPARE COPY OF GRAPH PAPER FOR QUESTION 4(ii)

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