

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS  
AS GCE**

**4771/01**

**MATHEMATICS (MEI)**

**Decision Mathematics 1**

**PRINTED ANSWER BOOK**

**FRIDAY 5 JUNE 2015: Morning**

**DURATION: 1 hour 30 minutes  
plus your additional time allowance**

**MODIFIED ENLARGED 24pt**

<b>Candidate forename</b>		<b>Candidate surname</b>	
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<b>Centre number</b>						<b>Candidate number</b>				
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**Candidates answer on this Printed Answer Book.**

**OCR SUPPLIED MATERIALS:**

**Question Paper 4771/01**

**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.**

**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 scientific or 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.**

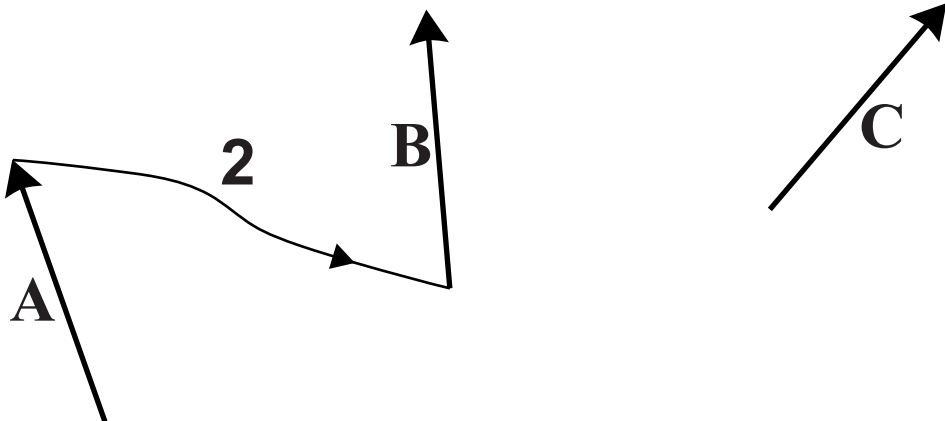
**The number of marks is given in brackets [ ] at the end of each question or part question on the Question Paper.**

**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.**

**Any blank pages are indicated.**

**SECTION A (24 marks)**

<b>1 (i)</b>												
<b>1 (ii)</b>	<table><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr><tr><td></td></tr></table>											

<b>1 (iii)</b>	
<b>1 (iv)</b>	

2 (i)

$i$	1	2	3						
$m_1$	2								
$c_1$	8								
$m_2$		2							
$c_2$		5							
$m_3$			4						
$c_3$			3						
$j$									
$a$									
$b$									
$d_1$									
$x_1$									
$y_1$									
$d_2$									
$x_2$									
$y_2$									
$d_3$									
$x_3$									
$y_3$									

Print area

<b>2 (ii)</b>	

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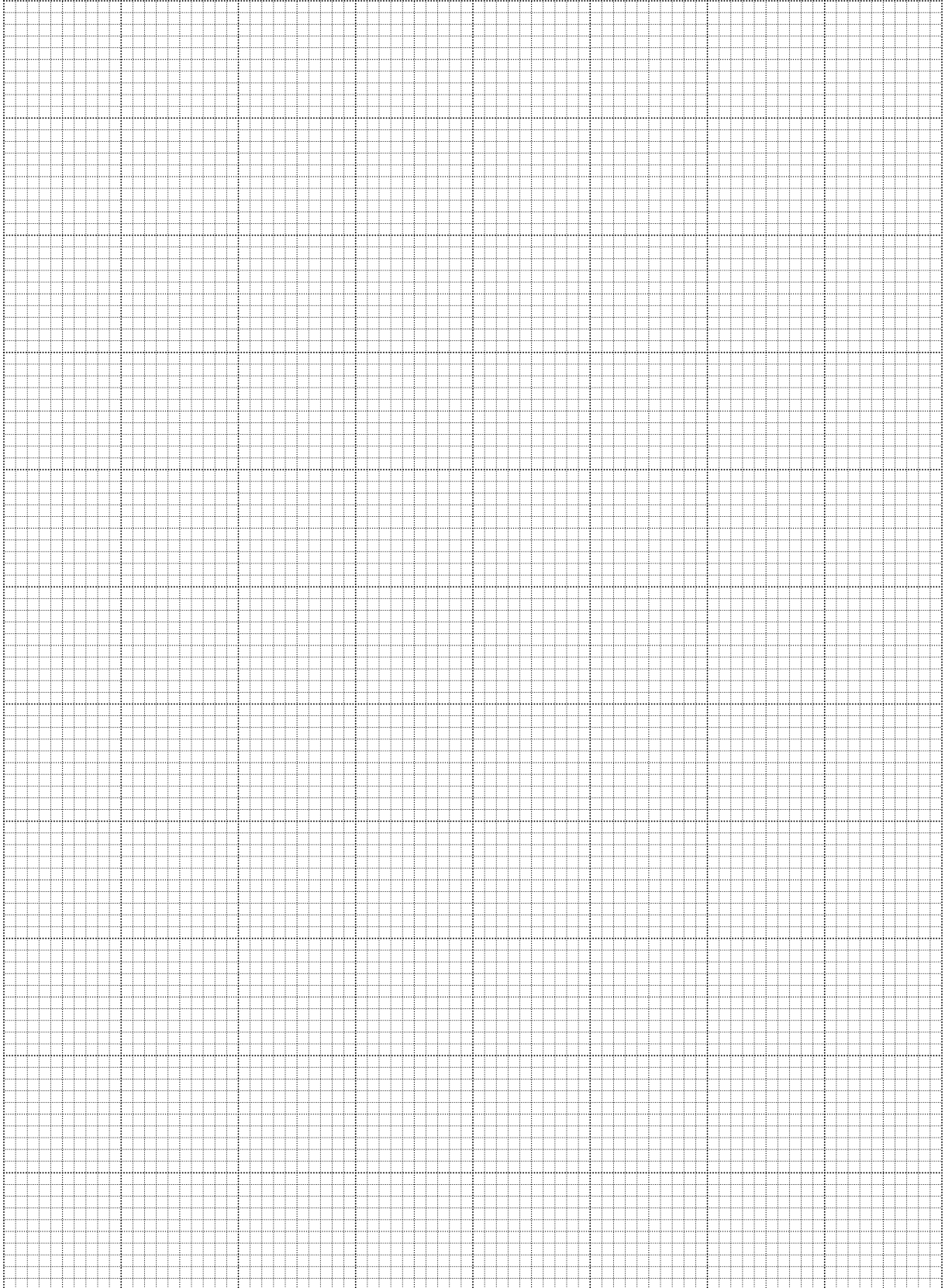
[illegible]

<b>3 (ii)</b>	
	<b>(answer space continued on next page)</b>

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**3 (ii) (continued)**

**A spare copy of this graph can be found  
on page 23**

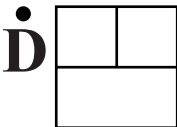
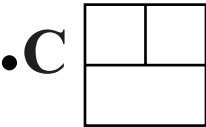
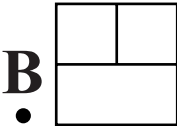
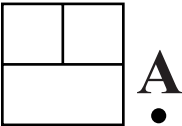


<b>3 (iii)</b>	

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SECTION B (48 marks)

4 (a)



4(b)(i)	<div style="display: flex; justify-content: space-around; align-items: center; height: 335px;"> <div style="text-align: center;"> <p><b>A</b></p> <p>•</p> </div> <div style="text-align: center;"> <p><b>B</b></p> <p>•</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; height: 100px;"> <div style="text-align: center;"> <p><b>F.</b></p> </div> <div style="text-align: center;"> <p><b>.C</b></p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; height: 100px;"> <div style="text-align: center;"> <p><b>E</b></p> <p>•</p> </div> <div style="text-align: center;"> <p><b>D</b></p> <p>•</p> </div> </div>

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<b>4 (b) (ii)</b>	

**PLEASE DO NOT WRITE IN THIS SPACE**

<b>4(b)(iii)</b>	

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<b>4(b)(iv)</b>	

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**5 (i) &  
(ii)**

**5 (iii) A spare copy of this diagram can be found on page 24**

[illegible]

**5 (iv)**

**A spare copy of this diagram can be found on page 25**

[illegible]

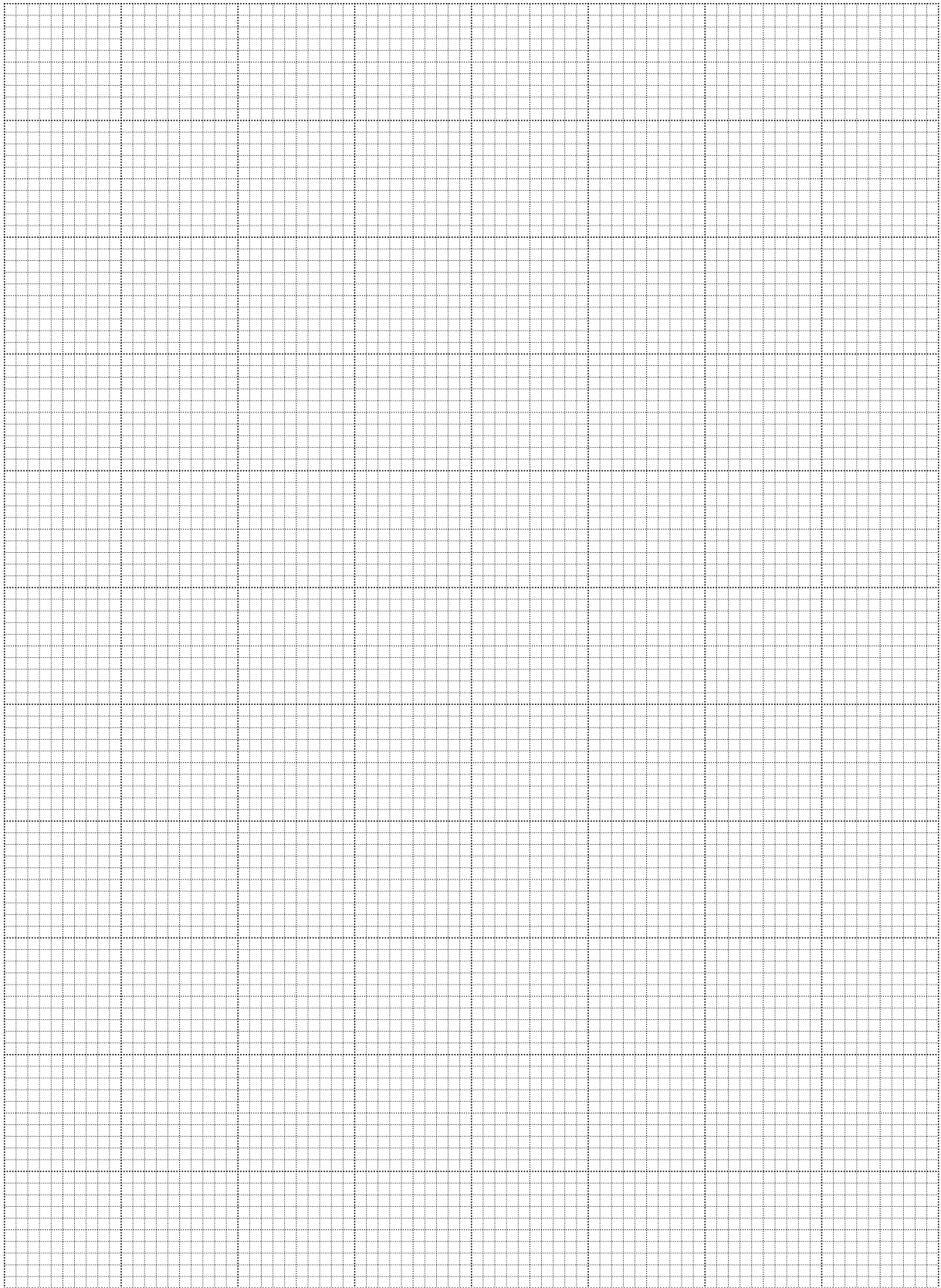
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<b>6 (i)</b>	
<b>6 (ii)</b>	<b>Random digits: 3 0 8 6 0 0 1 2 8 6</b>

<b>6 (iii)</b>	
<b>6 (iv)</b>	<b>Random digits:</b>
	<b>2 0 8 9 1   7 9 1 2 3   0 6 5 2 6</b>

**3 (ii)**

**Spare copy of graph paper for question 3 (ii)**



**5 (iii)**

[illegible]





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