

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS
AS GCE
4771/01**

**MATHEMATICS (MEI)
Decision Mathematics 1
PRINTED ANSWER BOOK
FRIDAY 25 JANUARY 2013:
Afternoon**

**DURATION: 1 hour 30 minutes
plus your additional time allowance
MODIFIED ENLARGED 24pt**

Candidate forename		Candidate surname	
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Centre number						Candidate number				
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Candidates answer on this Printed Answer Book.

OCR SUPPLIED MATERIALS:

**Question Paper 4771/01 (inserted)
MEI Examination Formulae and Tables (MF2)
Insert for question 6(i)**

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.**

- Do NOT write in the bar codes.
- 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.

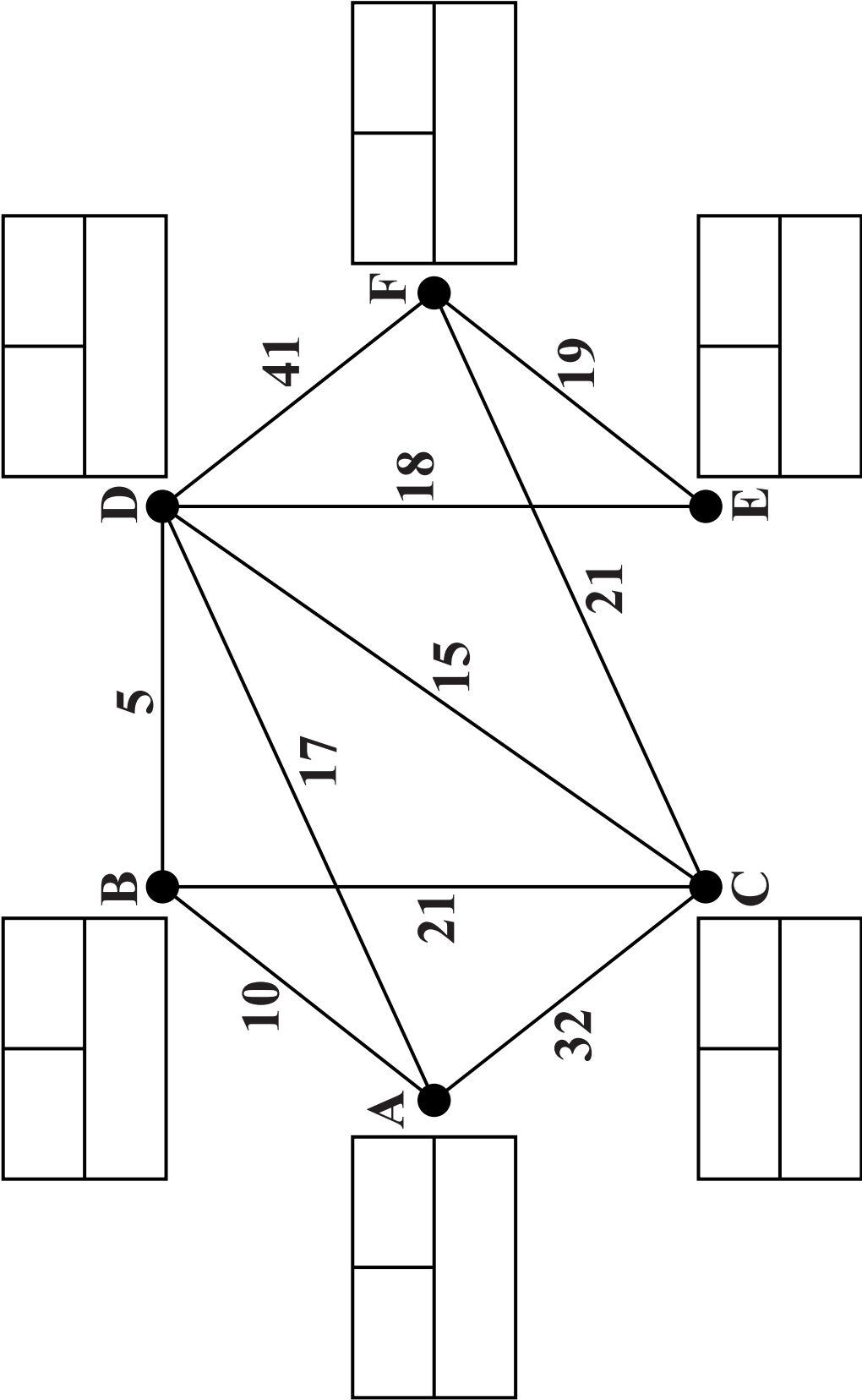
INFORMATION FOR CANDIDATES

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.
- The Printed Answer Book consists of 24 pages. The Question Paper consists of 8 pages. Any blank pages are indicated.

SECTION A (24 marks)

1 (i)



(answer space continued on next page)

1 (i)	(continued)

PLEASE DO NOT WRITE IN THIS SPACE.

1 (ii)	<div> <div> <div>B</div> <div>●</div> </div> <div> <div>D</div> <div>●</div> </div> </div> <div> <div> <div>A</div> <div>●</div> </div> <div> <div>F</div> <div>●</div> </div> </div> <div> <div> <div>●</div> <div>C</div> </div> <div> <div>●</div> <div>E</div> </div> </div>
2 (i)	

2 (ii)																							
2(iii)	<table> <tr> <th>Men</th><th>Women</th></tr> <tr> <td>A •</td><td>• V</td></tr> <tr> <td>B •</td><td>• W</td></tr> <tr> <td>Charming •</td><td>• Cinderella</td></tr> <tr> <td>Darcy •</td><td>• Ugly sister 1</td></tr> <tr> <td>E •</td><td>• Ugly sister 2</td></tr> <tr> <td>F •</td><td>• Ugly sister 3</td></tr> <tr> <td>G •</td><td>• Elizabeth</td></tr> <tr> <td>H •</td><td>• X</td></tr> <tr> <td>I •</td><td>• Y</td></tr> <tr> <td>J •</td><td>• Z</td></tr> </table> <p>A spare copy of this diagram can be found on page 11.</p>	Men	Women	A •	• V	B •	• W	Charming •	• Cinderella	Darcy •	• Ugly sister 1	E •	• Ugly sister 2	F •	• Ugly sister 3	G •	• Elizabeth	H •	• X	I •	• Y	J •	• Z
Men	Women																						
A •	• V																						
B •	• W																						
Charming •	• Cinderella																						
Darcy •	• Ugly sister 1																						
E •	• Ugly sister 2																						
F •	• Ugly sister 3																						
G •	• Elizabeth																						
H •	• X																						
I •	• Y																						
J •	• Z																						

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2 (iv)	
3 (i)	
(answer space continued on next page)	

3 (i) (continued)

(answer space continued on next page)

3 (i) (continued)	
3 (ii)	

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2 (iii) Spare copy of diagram for question 2 (iii)

Men	Women
A •	• V
B •	• W
Charming •	• Cinderella
Darcy •	• Ugly sister 1
E •	• Ugly sister 2
F •	• Ugly sister 3
G •	• Elizabeth
H •	• X
I •	• Y
J •	• Z

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SECTION B (48 marks)

**4 (i)
& (ii)**

[illegible]

(answer space continued on next page)
13

4 (iii)	(continued)
	Time to complete =
4 (iv)	

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5 (i)	

PLEASE DO NOT WRITE IN THIS SPACE.

5 (ii)	chair number	random digits	number of occupants
	1	5	
	2	3	
	3	0	
	4	2	
	5	4	
	6	7	
	7	9	
	8	1	
	9	1	
	10	8	
5 (iii)			

PLEASE DO NOT WRITE IN THIS SPACE.

5 (iv)	random digit		child (C) or adult (A)			
		occ1	occ2	occ3	occ4	
	chair 1	6	2	3	3	
	chair 2	0	6	7	1	
	chair 3	9	5	2	1	
	chair 4	6	2	1	2	
	chair 5	2	1	3	8	
	chair 6	9	1	6	0	
	chair 7	1	4	6	6	
	chair 8	5	8	5	0	
	chair 9	6	1	3	5	
	chair 10	2	9	5	1	
number of children on 10 chairs =						
number of adults on 10 chairs =						

5 (v)	
5 (vi)	

PLEASE DO NOT WRITE IN THIS SPACE.

5 (vii)	Random numbers: 23 65 07 99					
	37 45 47 86 71 17					
						number of occupants
	chair 1					
	chair 2					
	chair 3					
	chair 4					
chair 5						

PLEASE DO NOT WRITE IN THIS SPACE.

5 (viii)		occ1	occ2	occ3	occ4
	chair 1	1	2	6	4
	chair 2	9	2	3	6
	chair 3	6	8	2	1
	chair 4	8	0	2	9
	chair 5	1	8	1	4
	number of children on 5 chairs =				
	number of adults on 5 chairs =				
	total number of children on the chairlift =				
	total number of adults on the chairlift =				

5 (ix)	
6 (i)	
	A copy and a spare copy of the graph paper can be found on the insert.

6 (ii)	

6 (iii)	

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