

Friday 25 January 2013 – Afternoon

AS GCE MATHEMATICS (MEI)

4771/01 Decision Mathematics 1

PRINTED ANSWER BOOK

Candidates answer on this Printed Answer Book.

OCR supplied materials:

- Question Paper 4771/01 (inserted)
- MEI Examination Formulae and Tables (MF2)

Other materials required:

- Scientific or graphical calculator

Duration: 1 hour 30 minutes



Candidate forename		Candidate surname	
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Centre number						Candidate number				
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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.

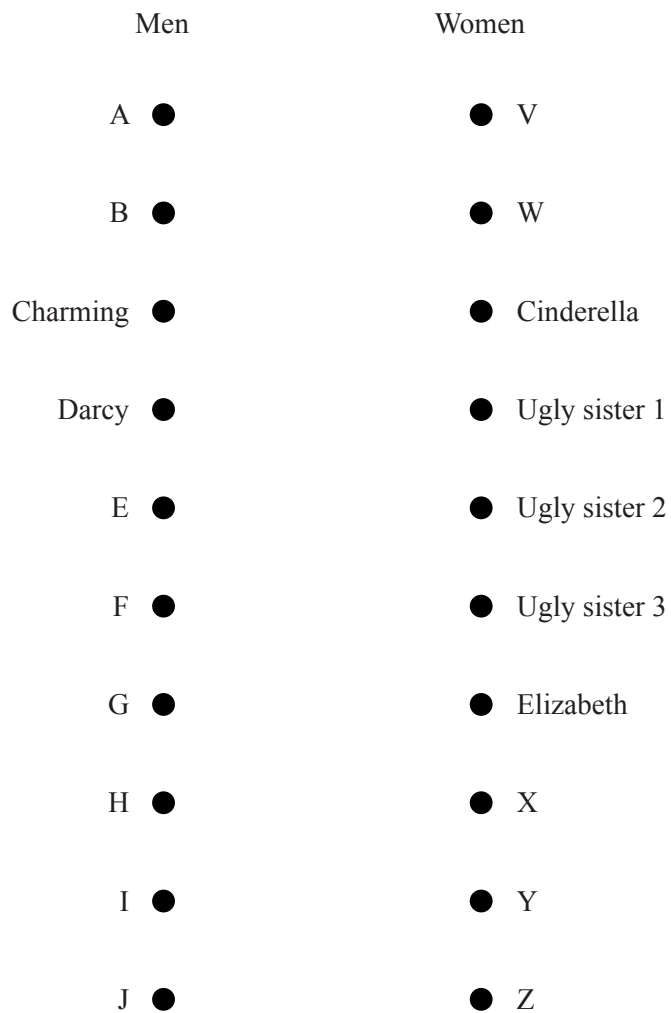
- The number of marks is given in brackets [] at the end of each question or part question on the Question Paper.
- You are advised that an answer may receive **no marks** unless you show sufficient detail of the working to indicate that a correct method is being used.
- The total number of marks for this paper is **72**.
- The Printed Answer Book consists of **12** pages. The Question Paper consists of **8** pages. Any blank pages are indicated.

This paper has been pre modified for carrier language

2 (i)																							
2 (ii)																							
2 (iii)	<table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: center; width: 50%;">Men</th> <th style="text-align: center; width: 50%;">Women</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">A ●</td> <td style="text-align: center;">● V</td> </tr> <tr> <td style="text-align: center;">B ●</td> <td style="text-align: center;">● W</td> </tr> <tr> <td style="text-align: center;">Charming ●</td> <td style="text-align: center;">● Cinderella</td> </tr> <tr> <td style="text-align: center;">Darcy ●</td> <td style="text-align: center;">● Ugly sister 1</td> </tr> <tr> <td style="text-align: center;">E ●</td> <td style="text-align: center;">● Ugly sister 2</td> </tr> <tr> <td style="text-align: center;">F ●</td> <td style="text-align: center;">● Ugly sister 3</td> </tr> <tr> <td style="text-align: center;">G ●</td> <td style="text-align: center;">● Elizabeth</td> </tr> <tr> <td style="text-align: center;">H ●</td> <td style="text-align: center;">● X</td> </tr> <tr> <td style="text-align: center;">I ●</td> <td style="text-align: center;">● Y</td> </tr> <tr> <td style="text-align: center;">J ●</td> <td style="text-align: center;">● Z</td> </tr> </tbody> </table> <p style="margin-top: 20px;">A spare copy of this diagram can be found on page 5.</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																						
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2 (iv)	<table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td style="height: 20px;"></td></tr> <tr><td style="height: 20px;"></td></tr> <tr><td style="height: 20px;"></td></tr> <tr><td style="height: 20px;"></td></tr> <tr><td style="height: 20px;"></td></tr> <tr><td style="height: 20px;"></td></tr> <tr><td style="height: 20px;"></td></tr> <tr><td style="height: 20px;"></td></tr> </table>																						

3 (ii)

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



Section B (48 marks)

<p>4 (i) & (ii)</p>	
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4 (iii)	Each cell represents 5 minutes																		
	Kate																		
	Pete																		
	cont.																		
	cont.																		
	cont.																		
	cont.																		
		Time to complete =																	
	4 (iv)																		

PLEASE DO NOT WRITE IN THIS SPACE.

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

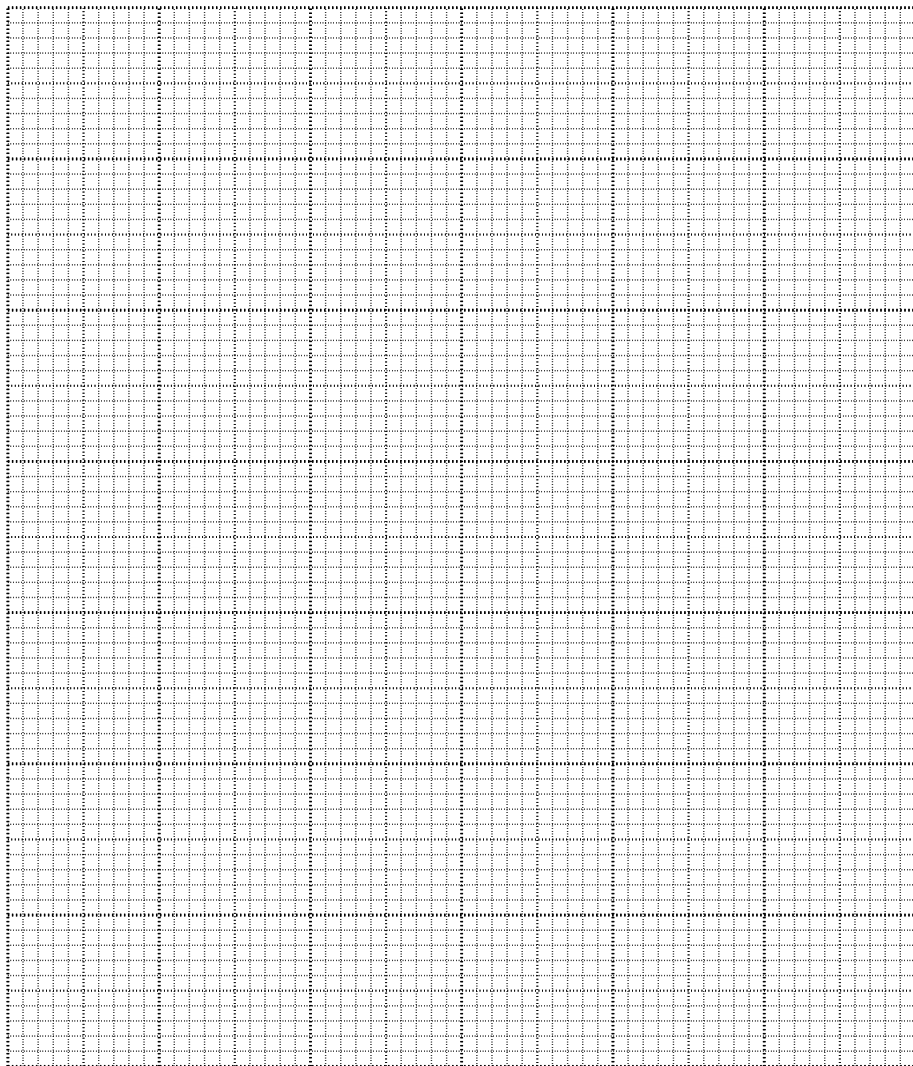
5(vi)	

5(vii)	Random numbers: 23 65 07 99 37 45 47 86 71 17												
	<table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 30%;">chair number</td> <td style="width: 10%;">1</td> <td style="width: 10%;">2</td> <td style="width: 10%;">3</td> <td style="width: 10%;">4</td> <td style="width: 10%;">5</td> </tr> <tr> <td>number of occupants</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	chair number	1	2	3	4	5	number of occupants					
chair number	1	2	3	4	5								
number of occupants													

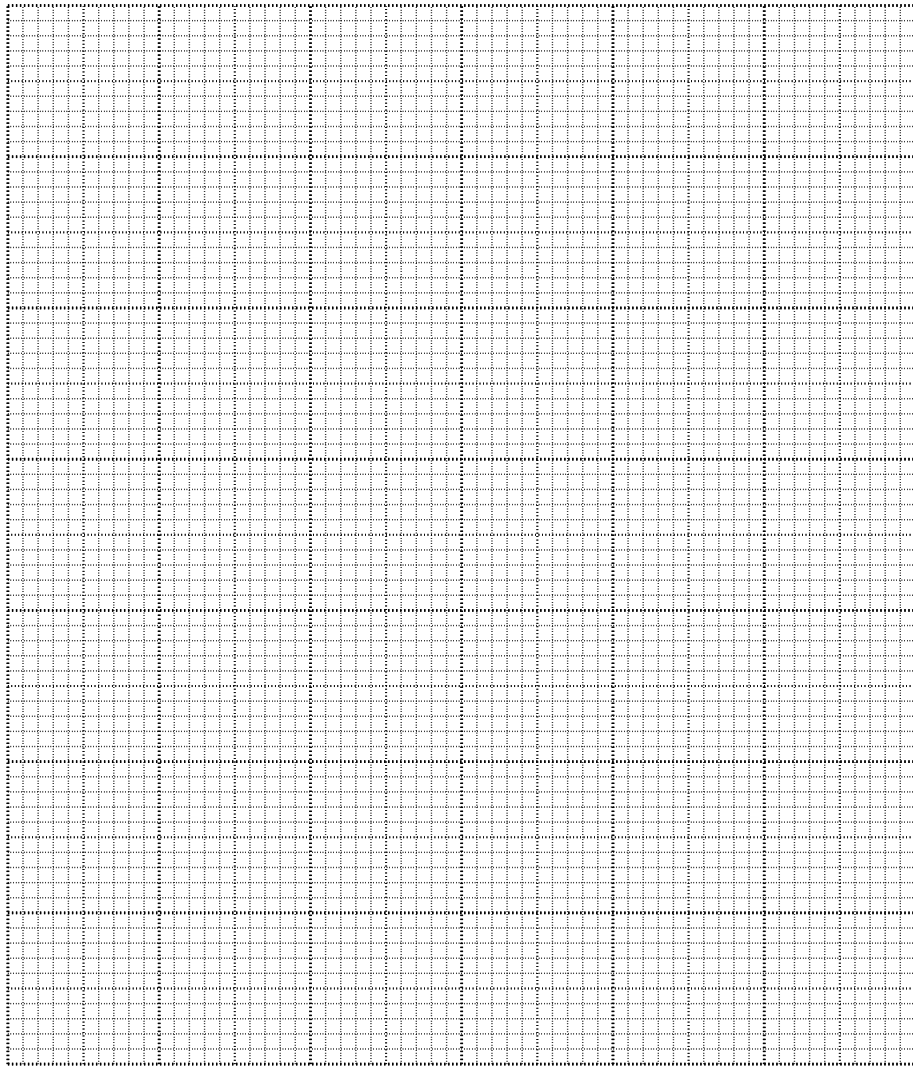
5(viii)	<table border="1" style="width: 100%; border-collapse: collapse; margin: 10px auto;"> <tr> <td></td> <td style="width: 10%;">chair 1</td> <td style="width: 10%;">chair 2</td> <td style="width: 10%;">chair 3</td> <td style="width: 10%;">chair 4</td> <td style="width: 10%;">chair 5</td> </tr> <tr> <td>occ1</td> <td>1</td> <td>9</td> <td>6</td> <td>8</td> <td>1</td> </tr> <tr> <td>occ2</td> <td>2</td> <td>2</td> <td>8</td> <td>0</td> <td>8</td> </tr> <tr> <td>occ3</td> <td>6</td> <td>3</td> <td>2</td> <td>2</td> <td>1</td> </tr> <tr> <td>occ4</td> <td>4</td> <td>6</td> <td>1</td> <td>9</td> <td>4</td> </tr> </table>		chair 1	chair 2	chair 3	chair 4	chair 5	occ1	1	9	6	8	1	occ2	2	2	8	0	8	occ3	6	3	2	2	1	occ4	4	6	1	9	4
		chair 1	chair 2	chair 3	chair 4	chair 5																									
	occ1	1	9	6	8	1																									
	occ2	2	2	8	0	8																									
	occ3	6	3	2	2	1																									
	occ4	4	6	1	9	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 spare copy of this graph paper can be found on page 12.

Spare copy of graph paper for 6(i)**Copyright Information**

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