OCR
RECOGNISING ACHIEVEMENT

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

* 4 7 7 1 0 1 *

* 4 7 3 3 0 5 0 1 1 3 *

Candidate forename		Candidate surname	

Centre number						Candidate number				

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.

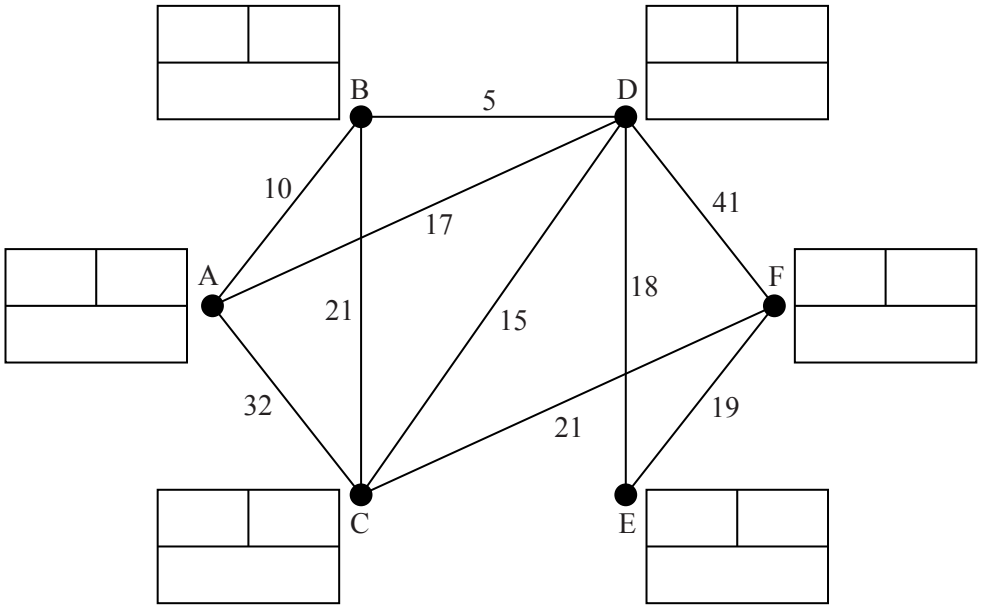
- The number of marks is given in brackets **[ ]** at the end of each question or part question on the Question Paper.
- You are advised that an answer may receive **no marks** unless you show sufficient detail of the working to indicate that a correct method is being used.
- The total number of marks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

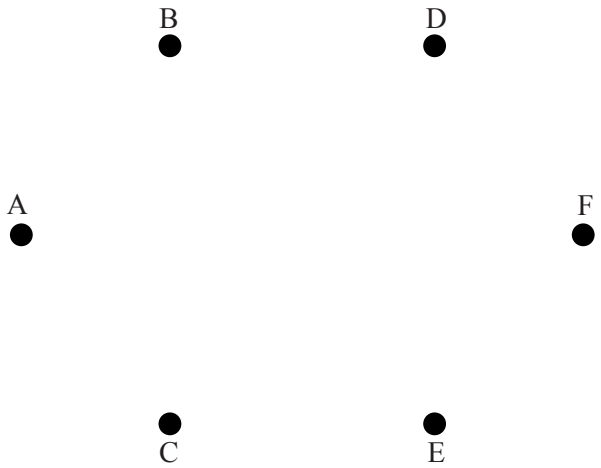
OCR is an exempt Charity

Section A (24 marks)

1 (i)



1 (ii)



2 (i)

2 (ii)

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

A spare copy of this diagram can be found on page 5.

2 (iv)

3 (i)	

3 (ii)

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

Section B (48 marks)

4 (i) & (ii)	

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

chair number	1	2	3	4	5
number of occupants					

5 (viii)

	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 =

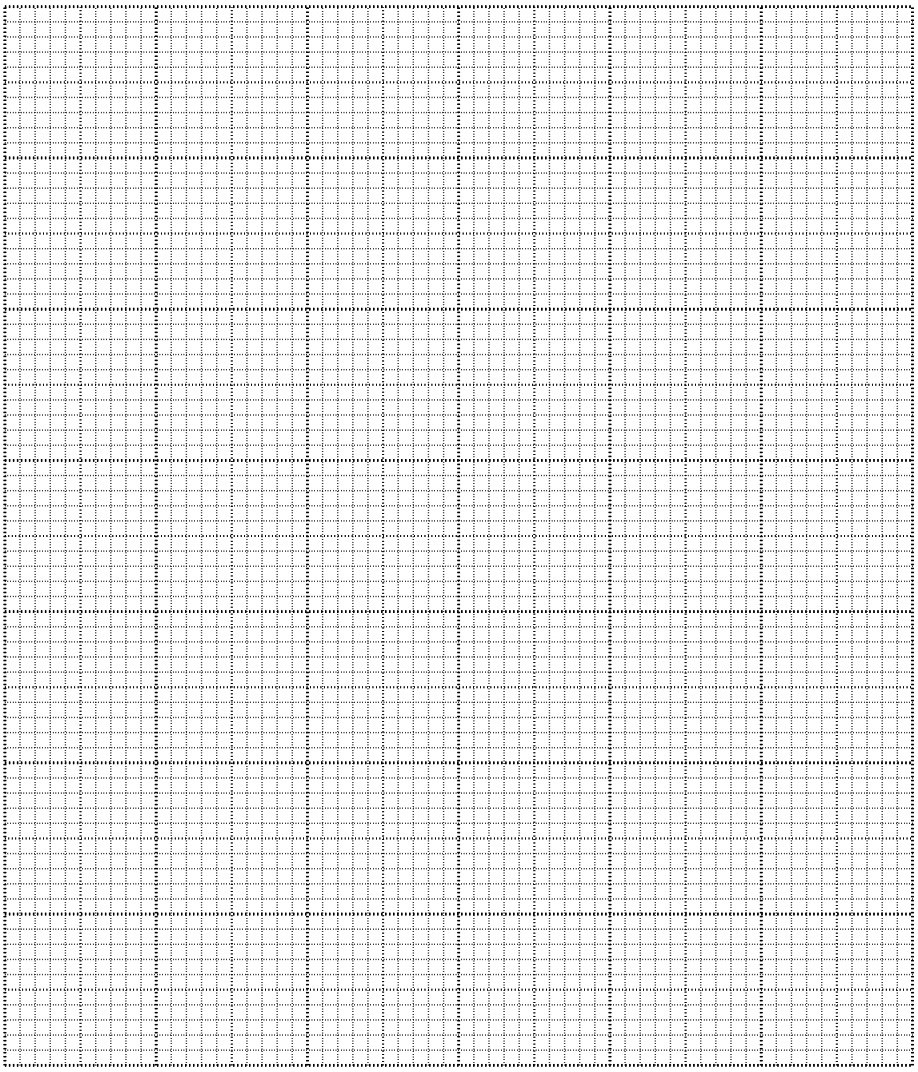
number of adults on 5 chairs =

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.

6 (ii)

6 (iii)

Spare copy of graph paper for 6(i)