

Friday 25 January 2013 – Afternoon

AS GCE MATHEMATICS

4736/01 Decision Mathematics 1

PRINTED ANSWER BOOK

Candidates answer on this Printed Answer Book.

OCR supplied materials:

- Question Paper 4736/01 (inserted)
- List of Formulae (MF1)

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.
- Answer **all** the questions.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Do **not** write in the bar codes.
- You are permitted to use a scientific or graphical calculator in this paper.
- Give non-exact numerical answers correct to 3 significant figures unless a different degree of accuracy is specified in the question or is clearly appropriate.

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 reminded of the need for clear presentation in your answers.**
- 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.

BLANK PAGE

PLEASE DO NOT WRITE ON THIS PAGE

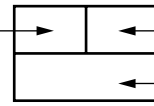
1 (i)		Comps	Swaps
	1st pass
	2nd pass
	3rd pass
	4th pass
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	6th pass
	7th pass
	8th pass
1 (ii)			
1 (iii)			
	Box 1:		
	Box 2:		
	Box 3:		
Box 4:			

2 (i)	(A)	(B)
	(C)	(D)
2 (ii)(1)		
2 (ii)(2)		
2 (ii)(3)		

2 (ii)(4)		
2 (ii)(5)		
2 (ii)(6)		
2 (iii)(a)		
2 (iii)(b)		
2 (iv)		

3 (i)

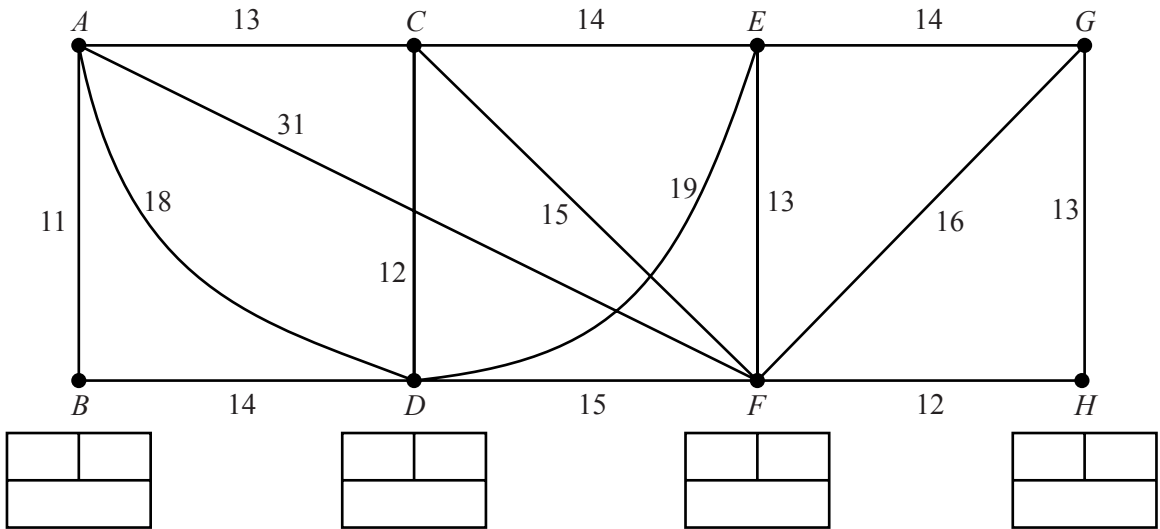
Key: Order of becoming permanent



Permanent label

Temporary labels

Do not cross out your working values (temporary labels)



3 (ii)	

3 (iii)	

4 (i)

Total weight:

	Pam	Alan	Bob	Caz	Dan	Ella	Fred	Gita
Pam	–	10	4	8	18	12	12	9
Alan	10	–	6	10	18	12	11	9
Bob	4	6	–	9	17	10	11	10
Caz	8	10	9	–	15	13	10	7
Dan	18	18	17	15	–	16	19	20
Ella	12	12	10	13	16	–	13	14
Fred	12	11	11	10	19	13	–	18
Gita	9	9	10	7	20	14	18	–

4 (ii)

	Pam	Alan	Bob	Caz	Dan	Ella	Fred	Gita
Pam	–	10	4	8	18	12	12	9
Alan	10	–	6	10	18	12	11	9
Bob	4	6	–	9	17	10	11	10
Caz	8	10	9	–	15	13	10	7
Dan	18	18	17	15	–	16	19	20
Ella	12	12	10	13	16	–	13	14
Fred	12	11	11	10	19	13	–	18
Gita	9	9	10	7	20	14	18	–

A ● B ● C ● D ●

●
P

● E ● F ● G

Total weight

4 (iii)																																																																																	
<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th style="border: none;"></th> <th>Pam</th> <th>Alan</th> <th>Bob</th> <th>Caz</th> <th>Dan</th> <th>Ella</th> <th>Fred</th> <th>Gita</th> </tr> </thead> <tbody> <tr> <th>Pam</th> <td style="text-align: center;">–</td> <td style="text-align: center;">10</td> <td style="text-align: center;">4</td> <td style="text-align: center;">8</td> <td style="text-align: center;">18</td> <td style="text-align: center;">12</td> <td style="text-align: center;">12</td> <td style="text-align: center;">9</td> </tr> <tr> <th>Alan</th> <td style="text-align: center;">10</td> <td style="text-align: center;">–</td> <td style="text-align: center;">6</td> <td style="text-align: center;">10</td> <td style="text-align: center;">18</td> <td style="text-align: center;">12</td> <td style="text-align: center;">11</td> <td style="text-align: center;">9</td> </tr> <tr> <th>Bob</th> <td style="text-align: center;">4</td> <td style="text-align: center;">6</td> <td style="text-align: center;">–</td> <td style="text-align: center;">9</td> <td style="text-align: center;">17</td> <td style="text-align: center;">10</td> <td style="text-align: center;">11</td> <td style="text-align: center;">10</td> </tr> <tr> <th>Caz</th> <td style="text-align: center;">8</td> <td style="text-align: center;">10</td> <td style="text-align: center;">9</td> <td style="text-align: center;">–</td> <td style="text-align: center;">15</td> <td style="text-align: center;">13</td> <td style="text-align: center;">10</td> <td style="text-align: center;">7</td> </tr> <tr> <th>Dan</th> <td style="text-align: center;">18</td> <td style="text-align: center;">18</td> <td style="text-align: center;">17</td> <td style="text-align: center;">15</td> <td style="text-align: center;">–</td> <td style="text-align: center;">16</td> <td style="text-align: center;">19</td> <td style="text-align: center;">20</td> </tr> <tr> <th>Ella</th> <td style="text-align: center;">12</td> <td style="text-align: center;">12</td> <td style="text-align: center;">10</td> <td style="text-align: center;">13</td> <td style="text-align: center;">16</td> <td style="text-align: center;">–</td> <td style="text-align: center;">13</td> <td style="text-align: center;">14</td> </tr> <tr> <th>Fred</th> <td style="text-align: center;">12</td> <td style="text-align: center;">11</td> <td style="text-align: center;">11</td> <td style="text-align: center;">10</td> <td style="text-align: center;">19</td> <td style="text-align: center;">13</td> <td style="text-align: center;">–</td> <td style="text-align: center;">18</td> </tr> <tr> <th>Gita</th> <td style="text-align: center;">9</td> <td style="text-align: center;">9</td> <td style="text-align: center;">10</td> <td style="text-align: center;">7</td> <td style="text-align: center;">20</td> <td style="text-align: center;">14</td> <td style="text-align: center;">18</td> <td style="text-align: center;">–</td> </tr> </tbody> </table>		Pam	Alan	Bob	Caz	Dan	Ella	Fred	Gita	Pam	–	10	4	8	18	12	12	9	Alan	10	–	6	10	18	12	11	9	Bob	4	6	–	9	17	10	11	10	Caz	8	10	9	–	15	13	10	7	Dan	18	18	17	15	–	16	19	20	Ella	12	12	10	13	16	–	13	14	Fred	12	11	11	10	19	13	–	18	Gita	9	9	10	7	20	14	18	–
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5 (i)	
5 (ii)	
5 (iii)	
5 (iv)	

5 (vi)	
5 (vii)	