

Candidate forename		Candidate surname	
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Centre number						Candidate number				
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**OXFORD CAMBRIDGE AND RSA EXAMINATIONS
ADVANCED SUBSIDIARY GCE**

4771

MATHEMATICS (MEI)

Decision Mathematics 1

PRINTED ANSWER BOOK

MONDAY 24 JANUARY 2011: Morning

DURATION: 1 hour 30 minutes

SUITABLE FOR VISUALLY IMPAIRED CANDIDATES

Candidates answer on this printed answer book or any suitable paper provided by the centre.

OCR SUPPLIED MATERIALS:

Question paper 4771 (inserted)

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. 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 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.**

SECTION A (24 marks)

1 (i)	$\overset{\cdot}{A}$ $\overset{\cdot}{B}$ $\overset{\cdot}{C}$
	$\overset{\cdot}{E}$ $\overset{\cdot}{D}$

1 (ii)	

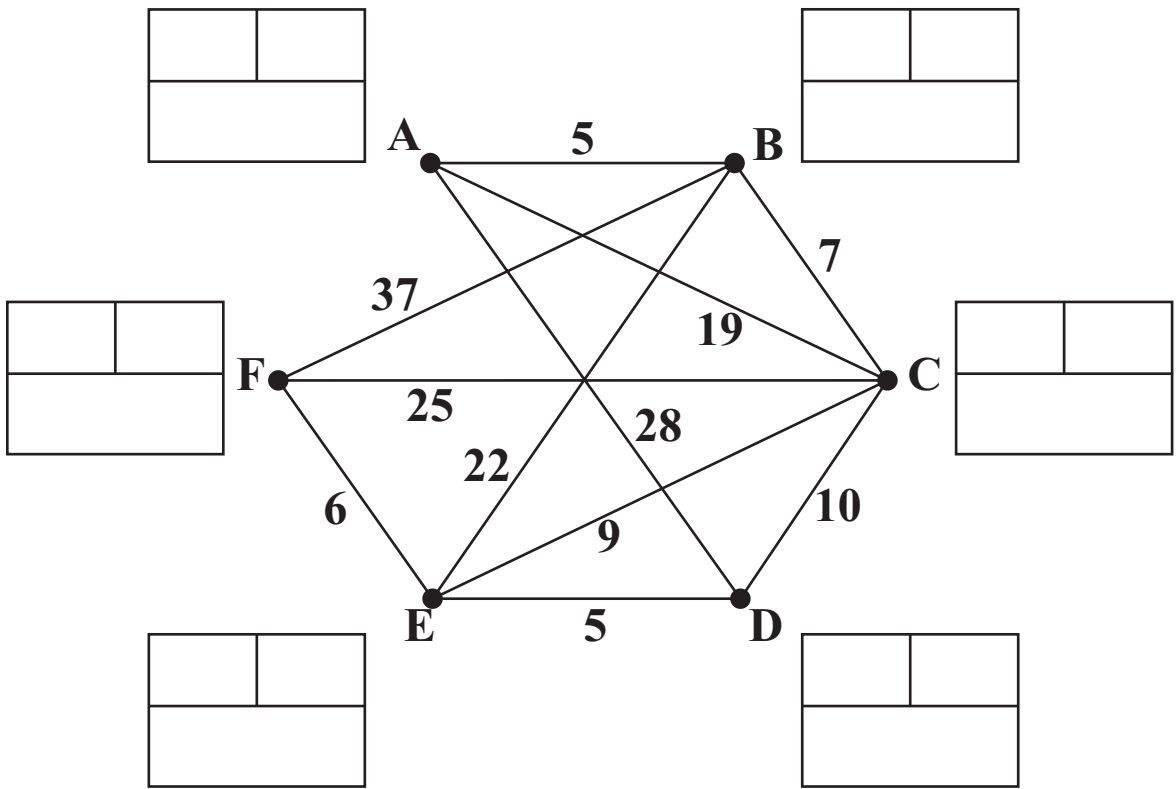
1 (iii)	

1 (iv)	

2 (i)	Test number	Sample from flagons	Result (D = dead, A = alive)
	1	1, 2, 3, 4	

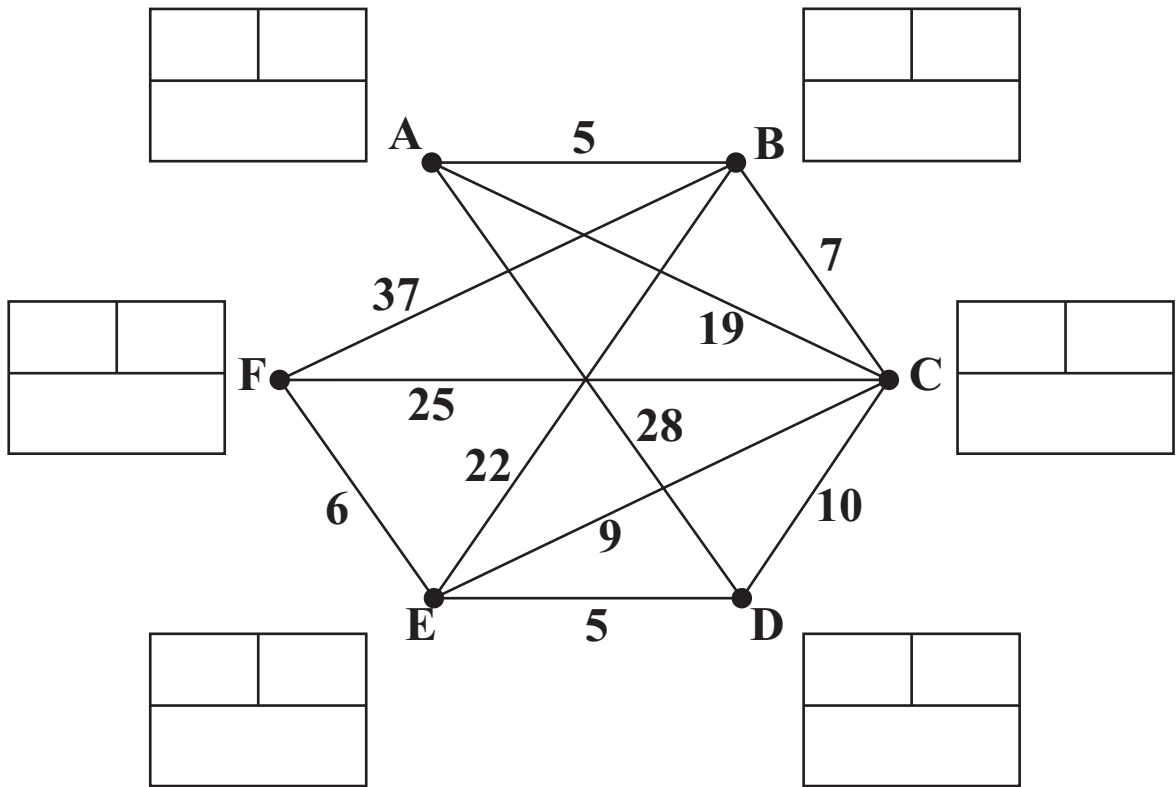
2 (ii)	Test number	Sample from flagons	Result (D = dead, A = alive)
	1	1, 2, 3, 4	

3 (i)



3 (ii)	
3 (iii)	

3 (i) SPARE COPY OF DIAGRAM



SECTION B (48 marks)

4 (i)	Task	Description	Duration (mins)	Immediate predecessor(s)
	A	Fill kettle and switch on	0.5	
	B	Boil kettle	1.5	
	C	Cut bread and put in toaster	0.5	
	D	Toast bread	2	
	E	Put eggs in pan of water and light gas	1	
	F	Boil eggs	5	
	G	Put tablecloth, cutlery and crockery on table	2.5	
	H	Make tea and put on table	0.5	
	I	Collect toast and put on table	0.5	
	J	Put eggs in cups and put on table	1	

4 (ii) & (iii)	

4 (iv)																																
	Critical activities :																															
	Duration:																															
	<table border="1"> <tr> <td>task:</td> <td>A</td> <td>B</td> <td>C</td> <td>D</td> <td>E</td> <td>F</td> <td>G</td> <td>H</td> <td>I</td> <td>J</td> </tr> <tr> <td>float:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>											task:	A	B	C	D	E	F	G	H	I	J	float:									
task:	A	B	C	D	E	F	G	H	I	J																						
float:																																

4 (v)

SPARE COPY OF GRID

5 (i)	
5 (ii)	

5 (iii)

Match number	Goals scored by Rocinate
1	3
2	0
3	1
4	0
5	0
6	1
7	1
8	2
9	1

Match number 10

Random number for simulating the number of chances created = 37

Number of simulated chances = _____

Random numbers for simulating the conversion of chances into goals:

43 2 47 14 33 72 32 96 59

Number of simulated goals = _____

5 (iv)	

5 (v)

Match number	Goals scored by Quince
1	3
2	1
3	1
4	1
5	1
6	0
7	0
8	1
9	1

Match number 10

Random number for simulating the number of chances created = 54

Number of simulated chances = _____

Random numbers for simulating the conversion of chances into goals:

72 42 11 89 56 85 5 72 91

Number of simulated goals = _____

5 (vi)	
5 (vii)	

6 (i)	
6 (ii)	

6 (iv)	

6 (v)	

SPARE COPY OF GRAPH PAPER FOR 6(iii)

