



Oxford Cambridge and RSA

Thursday 16 May 2019 – Afternoon

AS Level Further Mathematics B (MEI)

Y413/01 Modelling with Algorithms

Printed Answer Booklet

Time allowed: 1 hour 15 minutes



You must have:

- Question Paper Y413/01 (inserted)
- Formulae Further Mathematics B (MEI)

You may use:

- a scientific or graphical calculator



Please write clearly in black ink. **Do not write in the barcodes.**

Centre number

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Candidate number

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First name(s)

Last name

INSTRUCTIONS

- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions.
- **Write your answer to each question in the space provided in the Printed Answer Booklet.** Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- 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

- 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 used. You should communicate your method with correct reasoning.
- The Printed Answer Booklet consists of **12** pages. The Question Paper consists of **8** pages.

1(a)	
1(b)	

1(c)

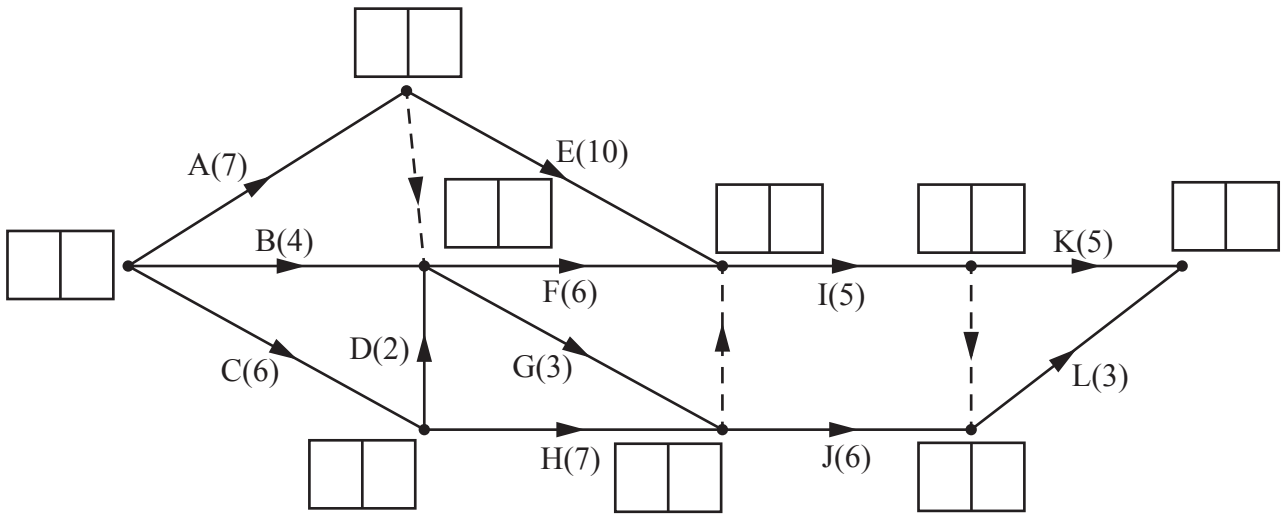
1(d)

2(a)

Activity	Immediate predecessor(s)
A	
B	
C	
D	
E	
F	
G	
H	
I	
J	
K	
L	

2(b)

2(c)(i)



2(c)(ii)

2(d)

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Person 1																
Person 2																
Person 3																

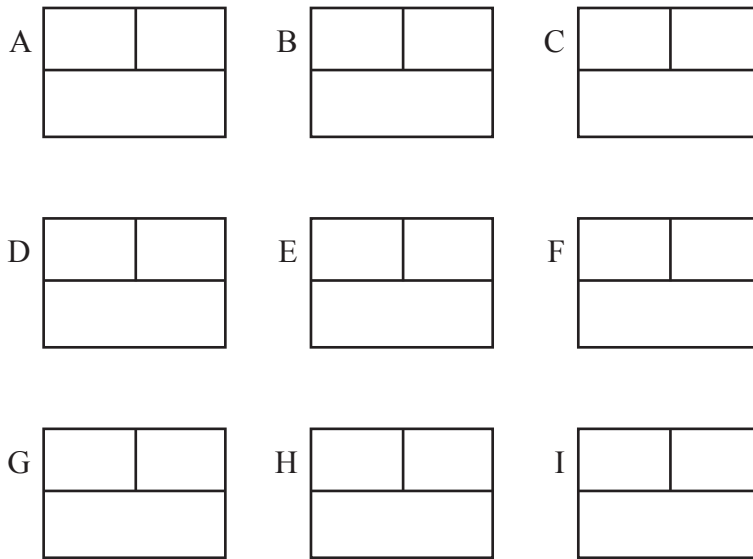
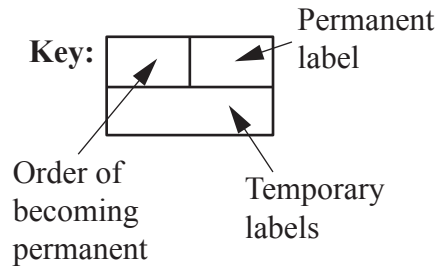
	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Person 1																
Person 2																
Person 3																

2(e)

3(a)

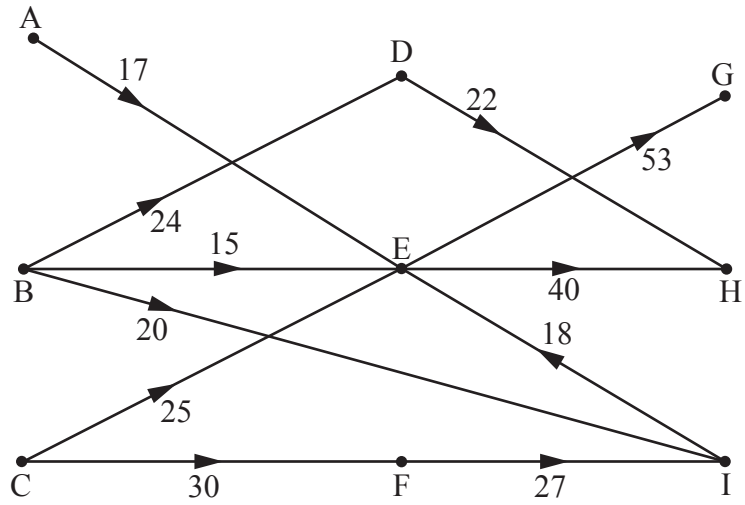
	A	B	C	D	E	F	G	H	I
A		5	8	16					
B	5		2			4	11		
C	8	2		8		1			
D	16		8		2				
E				2		3			5
F		4	1		3			2	12
G		11						2	
H						2	2		7
I					5	12		7	

3(b)



3(c)

4(a)



4(b)

4(c)(i)

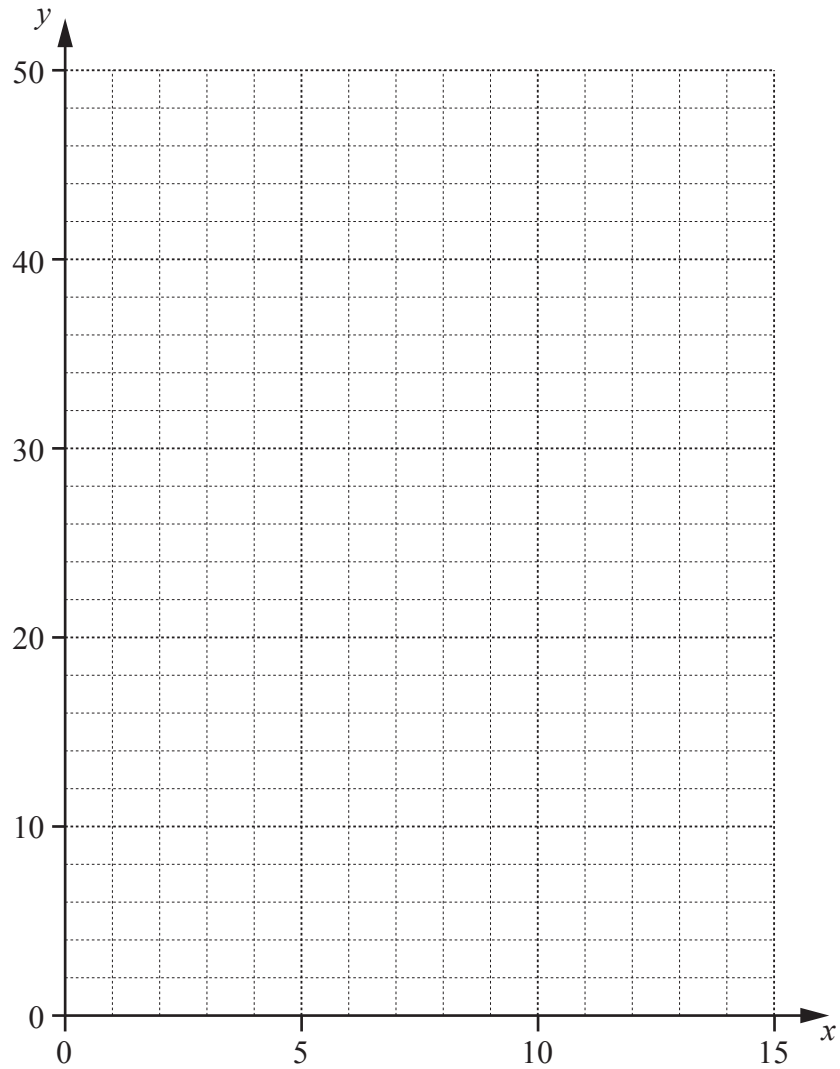
4(c)(ii)

4(d)	
4(e)(i)	
4(e)(ii)	
4(f)(i)	
4(f)(ii)	

5(a)

Q	P	x	y	z	s_1	s_2	s_3	s_4	a_1	a_2	RHS

5(b)



(answer space continued on next page)

5(b) (continued)	