

**ADVANCED SUBSIDIARY GCE
MATHEMATICS (MEI)**

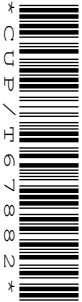
Decision Mathematics 1

4771

PRINTED ANSWER BOOK

**Monday 19 January 2009
Afternoon**

Duration: 1 hour 30 minutes



Candidate Forename		Candidate Surname	
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Centre Number						Candidate Number				
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INSTRUCTIONS TO CANDIDATES

- Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Write your answers in the spaces provided on the answer book. If extra paper is required use a 4 page answer booklet making sure that you label your work clearly. Attach any extra answer booklets to this Printed Answer Book.

INFORMATION FOR CANDIDATES

- This document consists of **8** pages. Any blank pages are indicated.

FOR EXAMINER'S USE	
1	
2	
3	
4	
5	
6	
TOTAL	

1 (i)

A ● ● 0

B ● ● 1

C ● ● 2

D ● ● 3

(ii)

(iii)

2 (i)

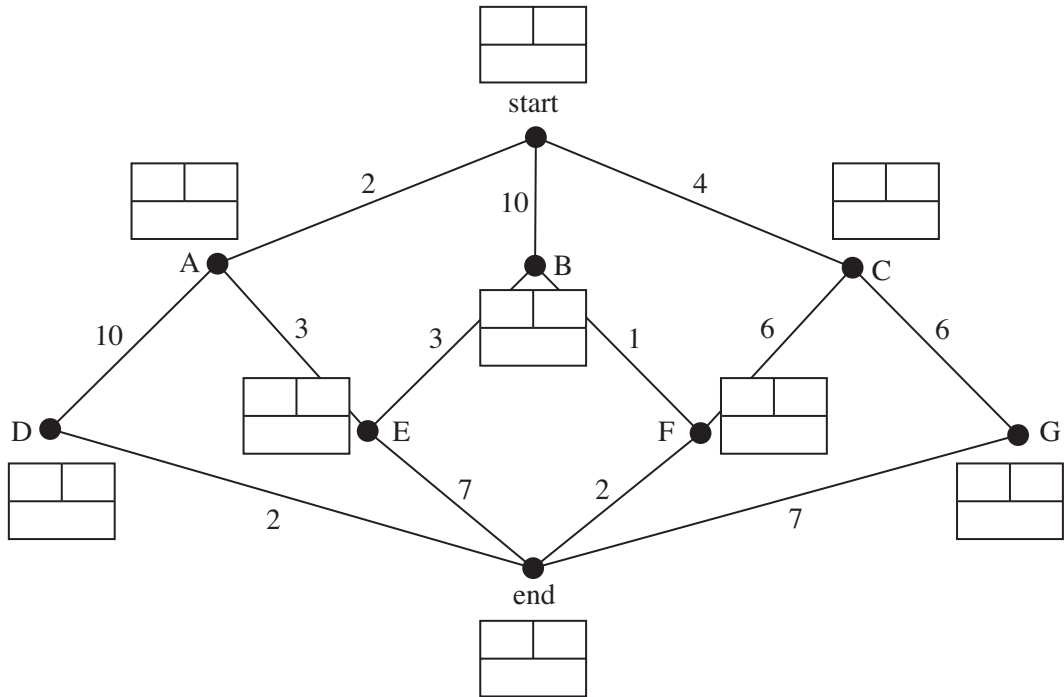
n	i	j	k

 $k =$ _____

(ii)

(iii)

3 (i)



Cheapest cost and route:

(ii)

There is a spare copy of the network on page 8

4 (i)

(ii)

(iii) Random numbers

Run 1	32	98	00	17	56	76
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(iv) Random numbers

Run 2	37	97	53	24	63	06
Run 3	69	04	78	58	67	82
Run 4	07	81	67	05	35	15
Run 5	83	34	24	36	99	29
Run 6	96	16	34	14	02	99
Run 7	71	61	94	23	13	85
Run 8	60	77	73	23	92	82
Run 9	43	59	21	27	67	26
Run 10	08	90	89	53	47	89

(v)

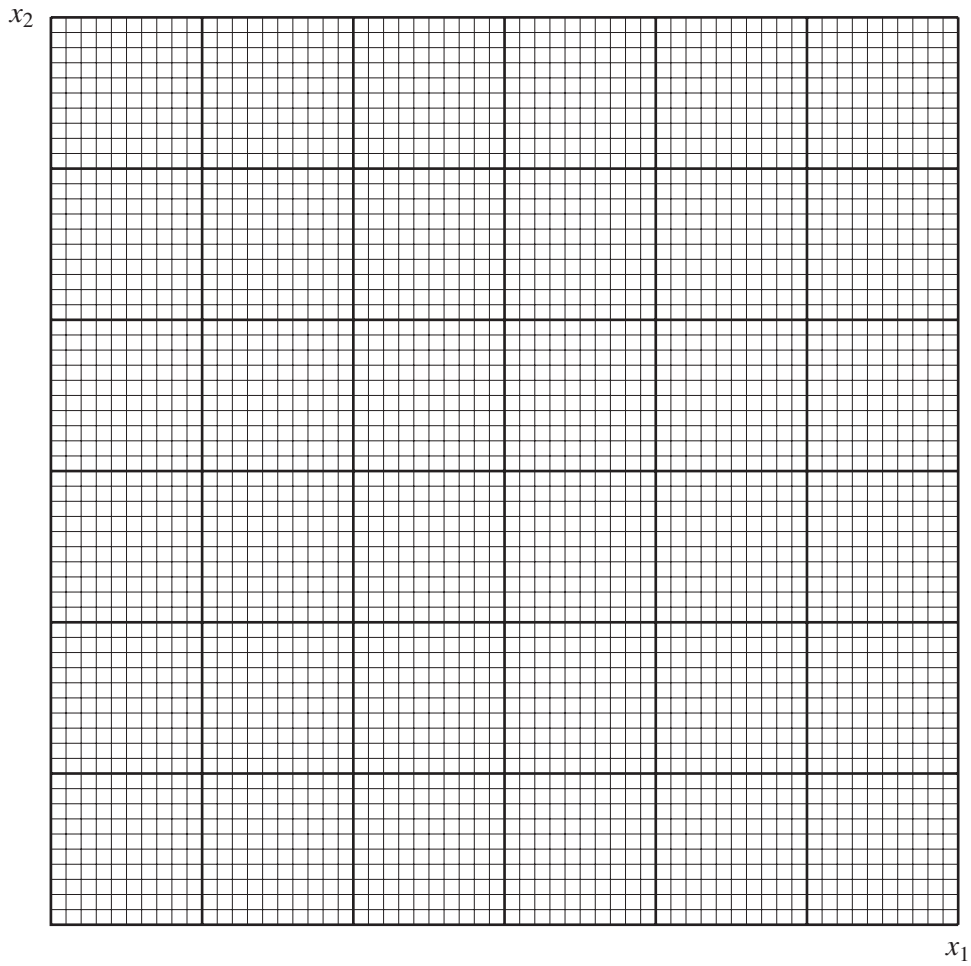
5 (i)&(ii)

(iii)

6 (i)

(ii)

(iii)



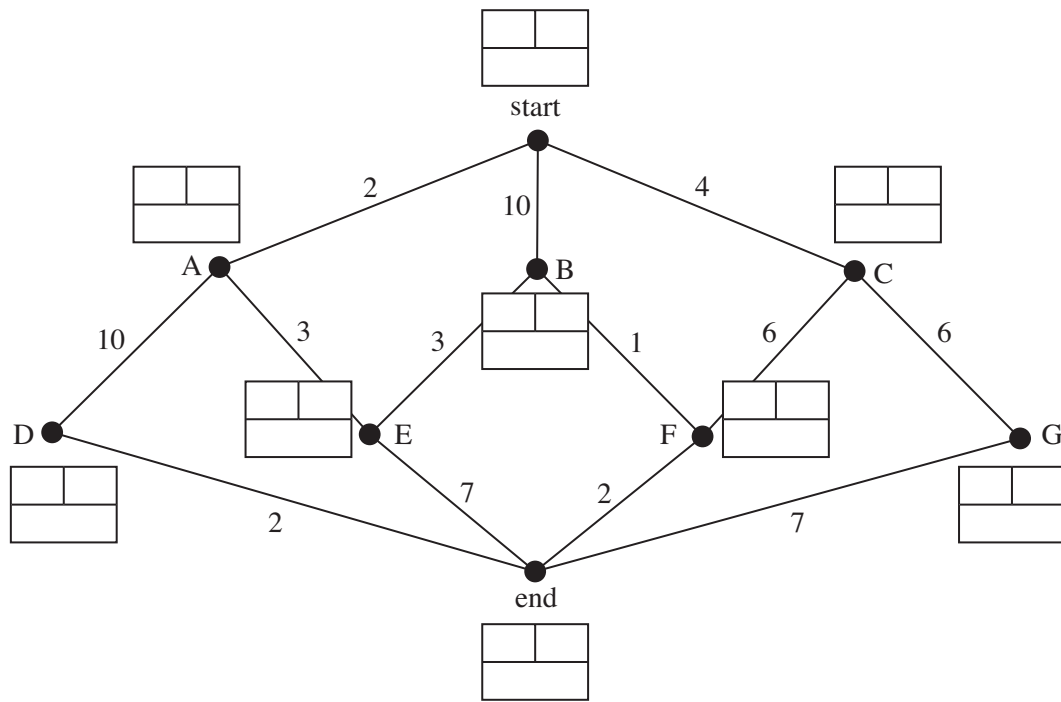
Optimal production plan:

Cost:

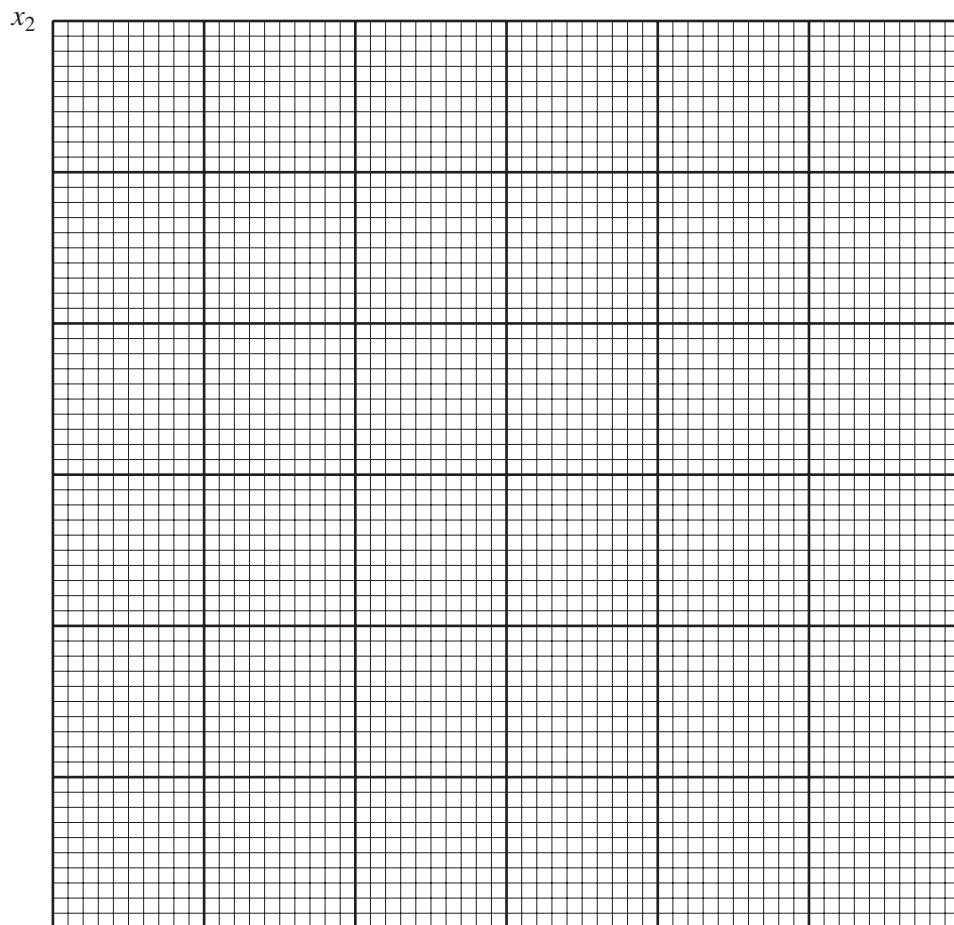
There is spare graph paper on page 8

Turn over

3 (i) Spare copy of network



6 Spare graph paper



x_1