

Candidate Name	Centre Number	Candidate Number

OXFORD CAMBRIDGE AND RSA EXAMINATIONS

**Advanced Subsidiary General Certificate of Education
Advanced General Certificate of Education**

MATHEMATICS

4737

Decision Mathematics 2

INSERT for Questions 1, 2 and 5

Friday

27 JANUARY 2006

Afternoon

1 hour 30 minutes

INSTRUCTIONS TO CANDIDATES

- This insert should be used to answer Questions **1, 2 and 5**.
- Write your name, centre number and candidate number in the spaces provided at the top of this page.
- Write your answers to Questions **1, 2 and 5** in the spaces provided in this insert, and attach it to your answer booklet.

This insert consists of 4 printed pages.

1 (i)

<i>A1</i> ●	● <i>G</i>
<i>A2</i> ●	● <i>P</i>
<i>B1</i> ●	● <i>R</i>
<i>B2</i> ●	● <i>T</i>
<i>C1</i> ●	● <i>W</i>
<i>C2</i> ●	● <i>Y</i>

(ii)

<i>A1</i> ●	● <i>G</i>
<i>A2</i> ●	● <i>P</i>
<i>B1</i> ●	● <i>R</i>
<i>B2</i> ●	● <i>T</i>
<i>C1</i> ●	● <i>W</i>
<i>C2</i> ●	● <i>Y</i>

(iii) Alternating path:

Amanda gets

Ben gets

Carrie gets

(iv) Amanda gets

Ben gets

Carrie gets

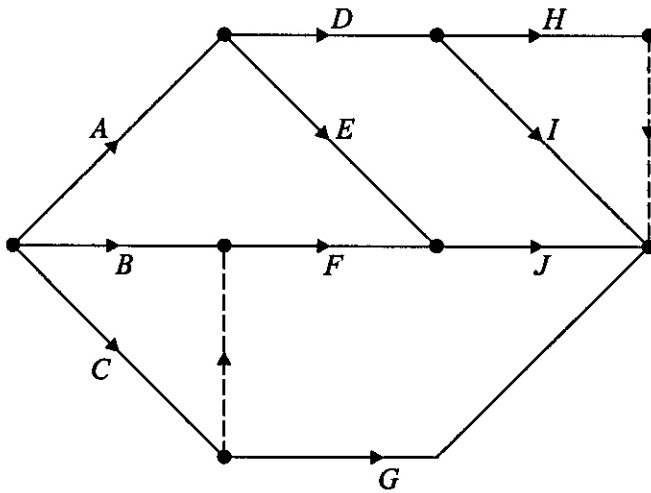
2

Stage	State	Action	Cost	Minimum
1	0	0	3	3
	1	0	4	4
2	0	0	$6 + 3 = 9$	
		1	$4 + 4 = 8$	
	1	0		
		1		
3	0	0		
		1		

Shortest route:

Length of shortest route = km

5



Activity	Duration	Immediate predecessors
A	5	
B	3	
C	4	
D	2	
E	1	
F	3	
G	5	
H	2	
I	4	
J	3	

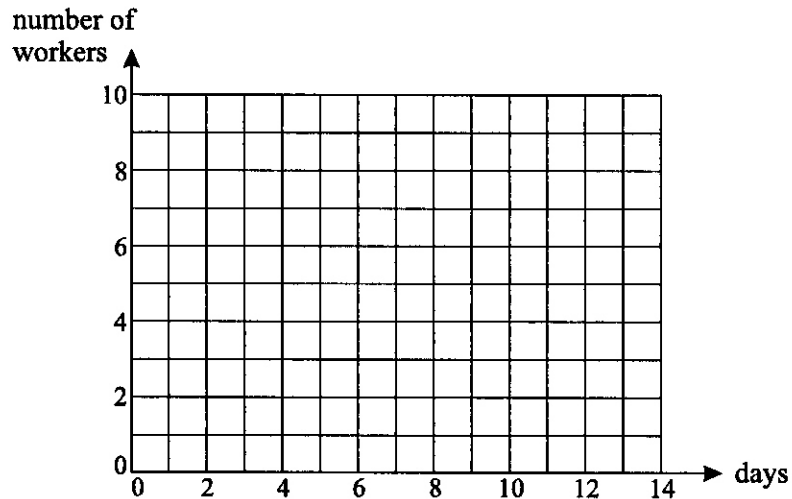
(i)

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(iii) Minimum completion time = Critical activities:

(iv)

(v)



Number of workers required =

(vi)

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