OCR
RECOGNISING ACHIEVEMENT

ADVANCED SUBSIDIARY GCE UNIT **4771/01**

MATHEMATICS (MEI)

Decision Mathematics 1

ANSWER BOOK

MONDAY 18 JUNE 2007

Morning
Time: 1 hour 30 minutes

Candidate Name	

Centre Number						Candidate Number				

INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the spaces provided above.
- Write your answers in the spaces provided on the answer book. If extra space is required use the blank page making sure that you label your work clearly.

For Examiner's Use	
Qu.	Mark
1	
2	
3	
4	
5	
6	
Total	

This answer book consists of **7** printed pages and **1** blank page.

[Turn over

1 (i)

(ii)

(iii)

(iv)

2 **(i)** Rucksack 1:

Rucksack 2:

Comment:

(ii) Order:

Rucksack 1:

Rucksack 2:

(iii) Rucksack 1:

Rucksack 2:

Explanation:

3

Maximum value of $2x + 3y$:

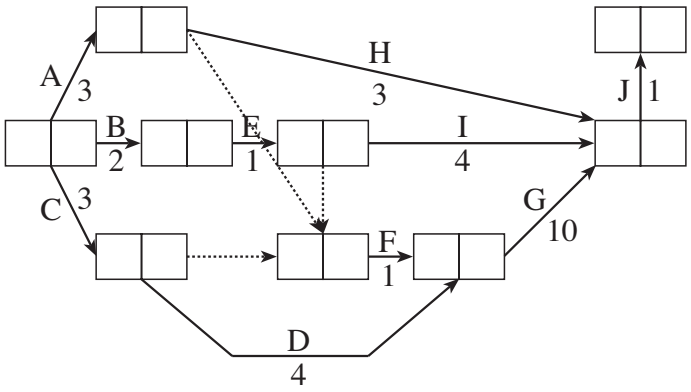
This occurs where $x =$

and where $y =$

4 **(i)**

Activity		Duration (minutes)	Immediate predecessors
A	Rig foresail	3	
B	Lower sprayhood	2	
C	Start engine	3	
D	Pump out bilges	4	
E	Rig mainsail	1	
F	Cast off mooring ropes	1	
G	Motor out of harbour	10	
H	Raise foresail	3	
I	Raise mainsail	4	
J	Stop engine and start sailing	1	

(ii)



Project duration:

Critical activities:

(iii) Activities whilst motoring:

(iv) Minimum time:

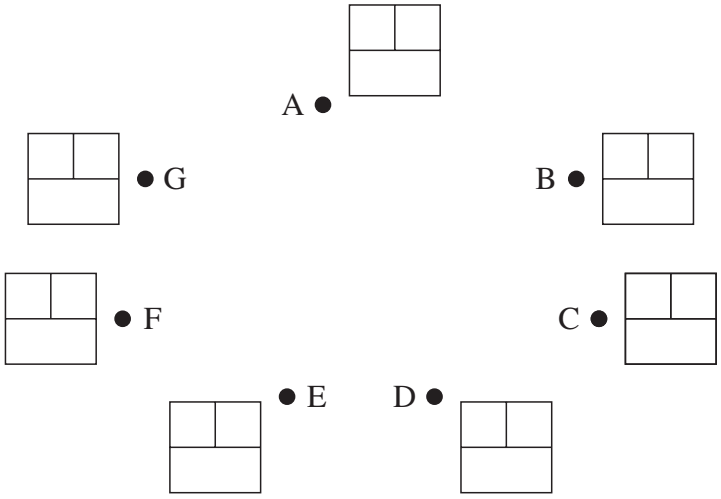
Schedule for Colin:

(v) Minimum time:

Schedule for Colin:

Schedule for crew member:

5 (i) & (ii)



Route: Weight:

(iii) Route: Weight:

Application:

(iv) Working value update

Next vertex to label

6 **(i)** (*A*)

(*B*)

(*C*)

(ii)

(iii)

(iv)

(v)