

Centre No.						Paper Reference					Surname	Initial(s)		
Candidate No.						6	6	8	9	/	0	1	Signature	

Paper Reference(s)

**6689/01**

# Edexcel GCE

## Decision Mathematics D1

### Advanced/Advanced Subsidiary

Thursday 15 May 2008 – Morning

### Answer Book

**Do not return the question paper with the answer book**

Examiner's use only

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Team Leader's use only

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Question Number	Leave Blank
1	
2	
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6	
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8	
Total	

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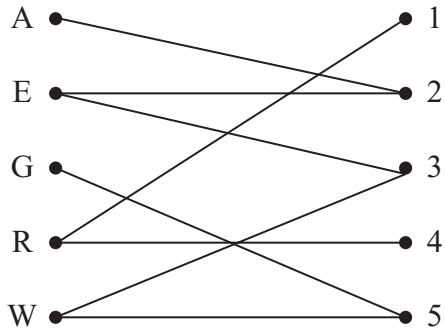
W850/R6689/57570 3/3/3/2



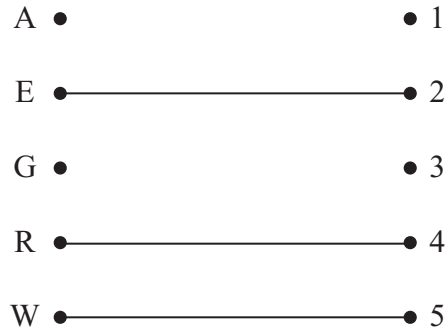
*Turn over*



2.



**Figure 1**



**Figure 2**

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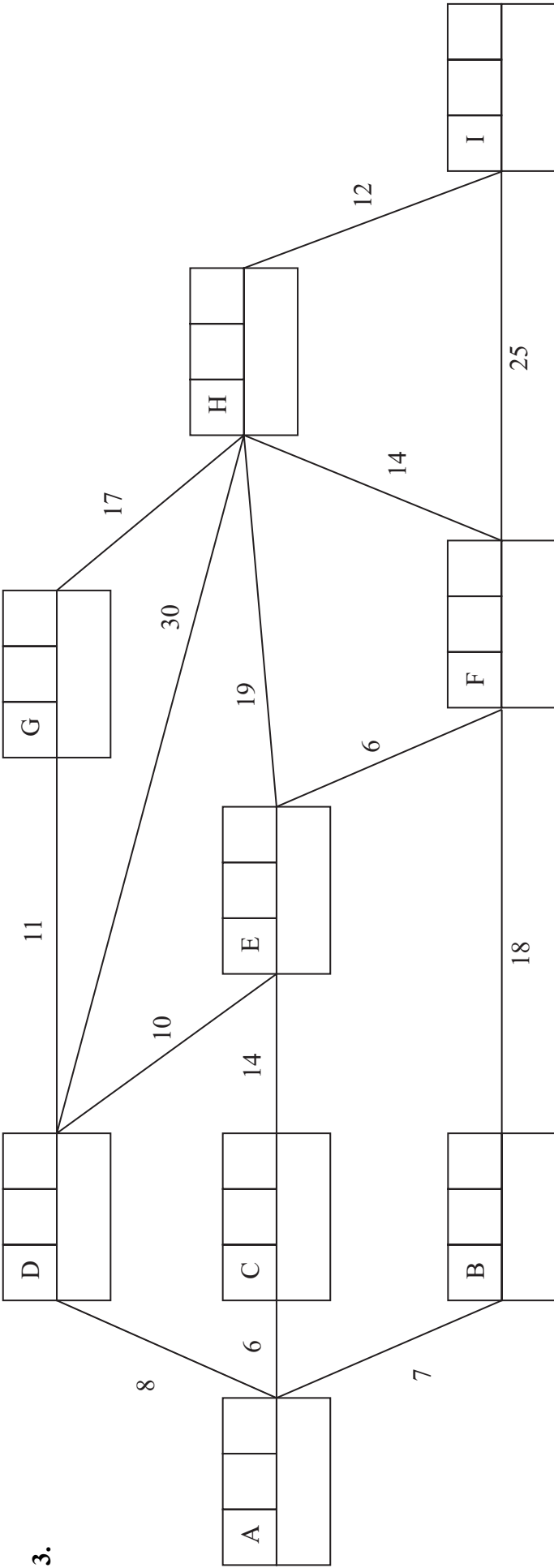
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shortest route: \_\_\_\_\_

length: \_\_\_\_\_

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Leave  
blank

Blank writing area with vertical lines.

Q3

(Total 9 marks)





Leave  
blank

A series of horizontal lines for writing, spanning most of the page width.

**(Total 8 marks)**

Q4





5.

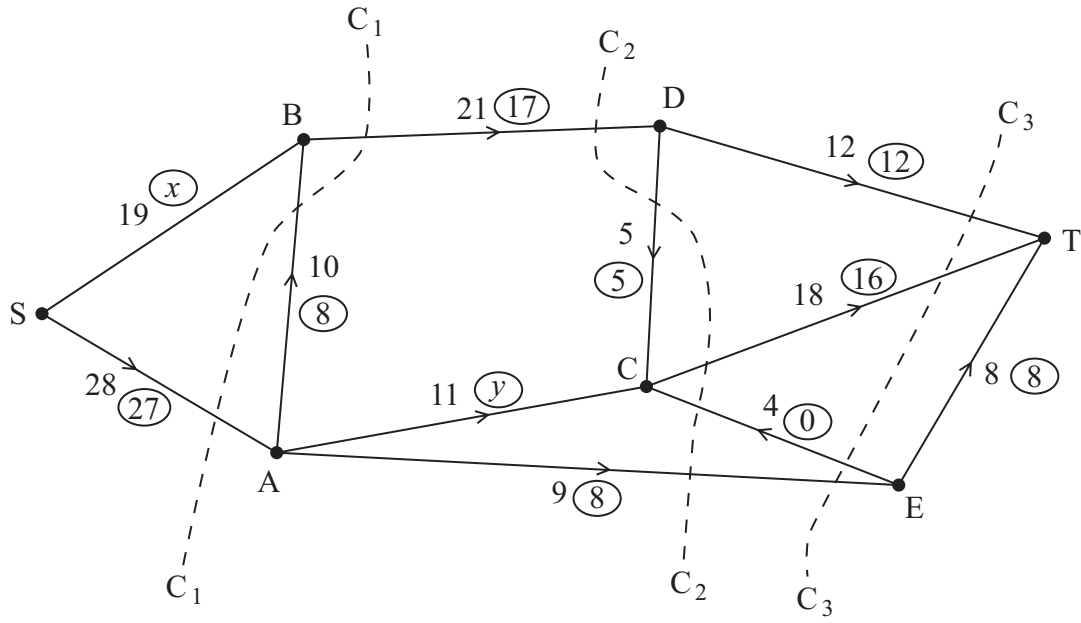


Figure 5

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Lined writing area consisting of 30 horizontal lines.

Q5

(Total 11 marks)

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6.

Basic variable	$x$	$y$	$z$	$r$	$s$	$t$	Value
$r$	4	$\frac{7}{3}$	$\frac{5}{2}$	1	0	0	64
$s$	1	3	0	0	1	0	16
$t$	4	2	2	0	0	1	60
$P$	-5	$-\frac{7}{2}$	-4	0	0	0	0

*You may not need to use all of these tableaux*

b.v.	$x$	$y$	$z$	$r$	$s$	$t$	Value	Row operations
$P$								

b.v.	$x$	$y$	$z$	$r$	$s$	$t$	Value	Row operations
$P$								

b.v.	$x$	$y$	$z$	$r$	$s$	$t$	Value	Row operations
$P$								

b.v.	$x$	$y$	$z$	$r$	$s$	$t$	Value	Row operations
$P$								





7. (a)  $v =$  \_\_\_\_\_,  $w =$  \_\_\_\_\_,  $x =$  \_\_\_\_\_,  
 $y =$  \_\_\_\_\_,  $z =$  \_\_\_\_\_,

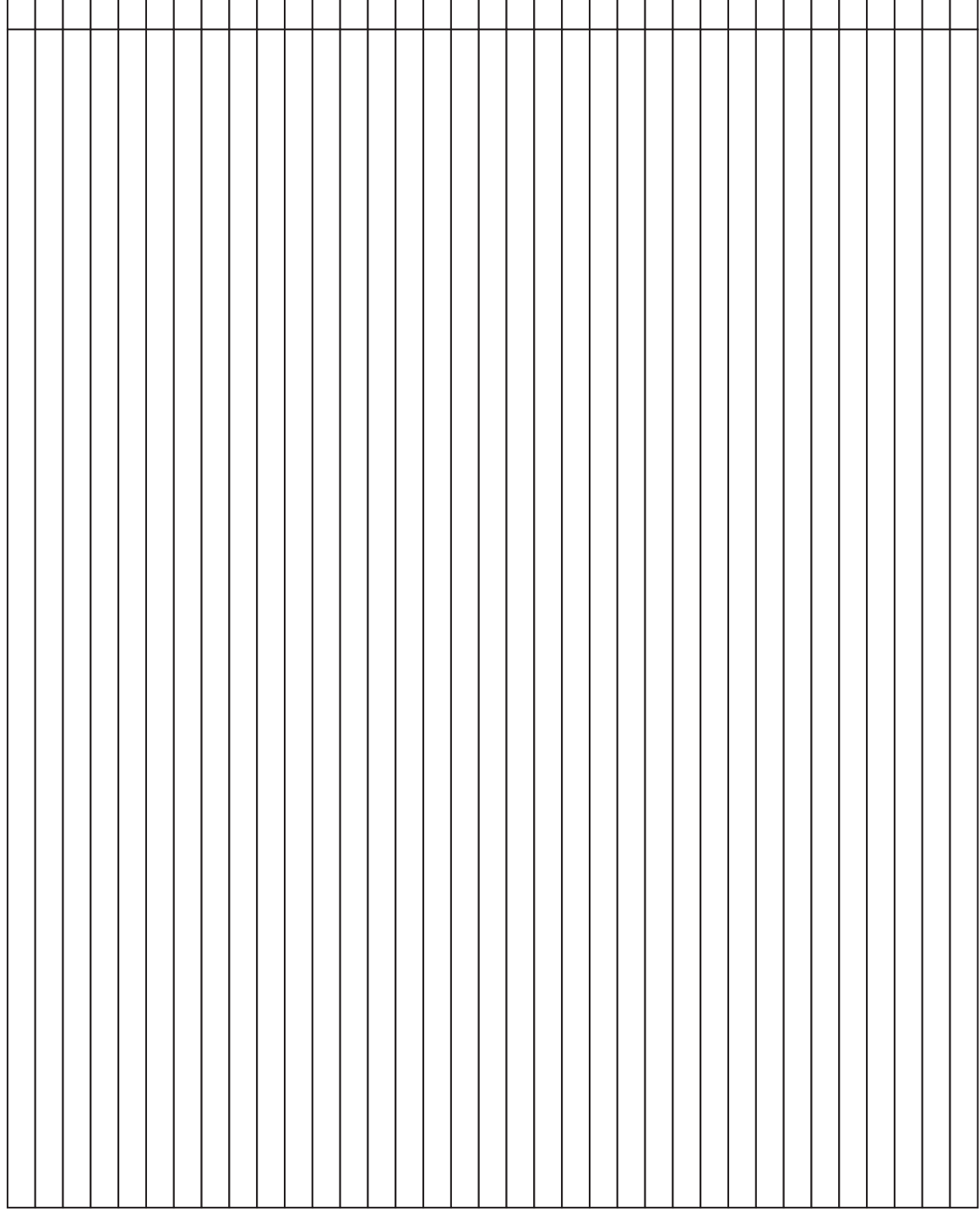
(b) Critical activities \_\_\_\_\_

(c) Total float on activity H \_\_\_\_\_

Total float on activity J \_\_\_\_\_

(d)

0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34



(e)

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**(Total 14 marks)**

Q7

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8.

Lined area for writing answer to question 8.

**(Total 7 marks)**

Q8

Small box for marking.

**TOTAL FOR PAPER: 75 MARKS**

**END**

