

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

Paper Reference(s)

6690/01

# Edexcel GCE

## Decision Mathematics D2

### Advanced/Advanced Subsidiary

Wednesday 24 June 2015 – 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	
3	
4	
5	
6	
<b>Total</b>	

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**P44853A**



Turn over



1.

b.v.	$x$	$y$	$z$	$r$	$s$	$t$	Value
$r$	2	-4	1	1	0	0	15
$s$	4	2	-8	0	1	0	20
$t$	1	-1	4	0	0	1	8
$P$	-3	2	7	0	0	0	0

(a) *You may not need to use all these tableaux*

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

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

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







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**Question 2 continued**

Lined writing area for the answer to Question 2.



P 4 4 8 5 3 A 0 5 2 0

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**Question 2 continued**

*(This area contains horizontal lines for writing the answer to Question 2.)*





**3.**

	A	B	C	D	E	F	G
A	–	$x$	41	43	38	21	30
B	$x$	–	27	38	19	29	51
C	41	27	–	24	37	35	40
D	43	38	24	–	44	52	25
E	38	19	37	44	–	20	28
F	21	29	35	52	20	–	49
G	30	51	40	25	28	49	–

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## Question 3 continued

	A	B	C	D	E	F	G
A	–	$x$	41	43	38	21	30
B	$x$	–	27	38	19	29	51
C	41	27	–	24	37	35	40
D	43	38	24	–	44	52	25
E	38	19	37	44	–	20	28
F	21	29	35	52	20	–	49
G	30	51	40	25	28	49	–

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**Question 3 continued**

Lined area for writing the answer to Question 3.

(Total 12 marks)

**Q3**

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**Question 4 continued**

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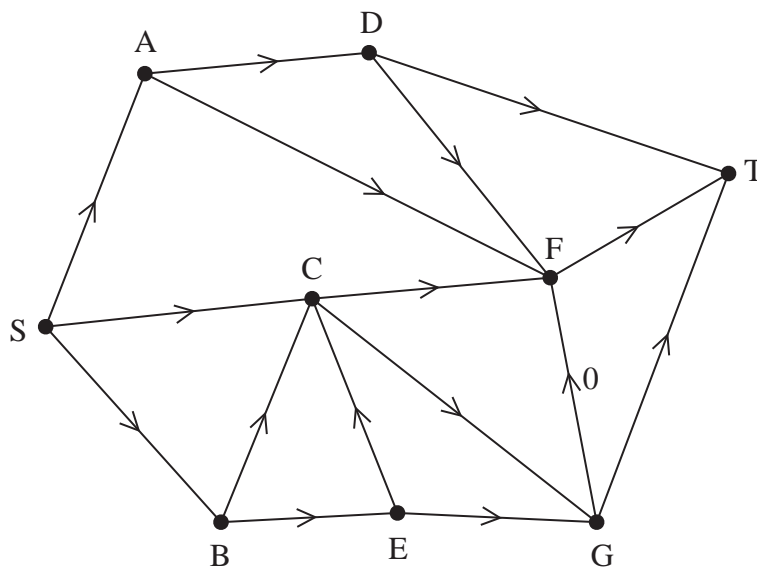
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(e)



**Diagram 1**

**(Total 7 marks)**

**Q4**



P 4 4 8 5 3 A 0 1 3 2 0

5.

	P	Q	R	Supply
A	20	5	13	74
B	7	15	8	58
C	9	14	21	63
D	22	16	10	85
Demand	145	57	78	

	P	Q	R
A			
B			
C			
D			

	P	Q	R
A			
B			
C			
D			

	P	Q	R
A			
B			
C			
D			

	P	Q	R
A			
B			
C			
D			

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**Question 5 continued**

[Lined writing area for the answer to Question 5]

**Q5**

(Total 17 marks)





**Question 6 continued**

Stage	State	Action	Dest.	Value

(c) Weight:

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(d) Route:

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(e) (i)

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(e) (ii)

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**Q6**

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**(Total 16 marks)**

**TOTAL FOR PAPER: 75 MARKS**

**END**

