

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

Paper Reference(s)

**6690/01R**

**Edexcel GCE**

**Decision Mathematics D2**

**Advanced/Advanced Subsidiary**

**Tuesday 24 June 2014 – 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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5	
6	
7	
<b>Total</b>	

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W850/R6690/57570 5/5/1/



*Turn over*



1.

	P	Q	R	S	Supply
A	28	32	33	27	13
B	31	29	26	31	4
C	30	26	29	32	12
D	25	30	28	34	11
Demand	11	10	11	8	

(a)

	P	Q	R	S	Supply
A					13
B					4
C					12
D					11
Demand	11	10	11	8	

(b)

	P	Q	R	S	Supply
A	x	x			13
B	6	x			4
C	8	x	x		12
D	4	5	x	x	11
Demand	11	10	11	8	

**Table 1**

**Question 1 continued**

(c)

	P	Q	R	S	Supply
A					13
B					4
C					12
D					11
Demand	11	10	11	8	

	P	Q	R	S	Supply
A					13
B					4
C					12
D					11
Demand	11	10	11	8	

	P	Q	R	S	Supply
A					13
B					4
C					12
D					11
Demand	11	10	11	8	

	P	Q	R	S	Supply
A					13
B					4
C					12
D					11
Demand	11	10	11	8	

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(d)

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**(Total 10 marks)**

<b>Q1</b>	
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2. (a)

	A	B	C	D	E	F
A	–	65	48	15	30	40
B	65	–	50	51	35	26
C	48	50	–	37	20	34
D	15	51	37	–	17	25
E	30	35	20	17	–	14
F	40	26	34	25	14	–



**Question 2 continued**

	A	B	C	D	E	F
A	–	65	48	15	30	40
B	65	–	50	51	35	26
C	48	50	–	37	20	34
D	15	51	37	–	17	25
E	30	35	20	17	–	14
F	40	26	34	25	14	–

**Q2****(Total 10 marks)**



### Question 3 continued

Handwriting practice area consisting of 30 horizontal lines.

(Total 10 marks)

**Q3**



4.

b.v.	$x$	$y$	$z$	$r$	$s$	$t$	Value
$r$	4	3	$\frac{5}{2}$	1	0	0	50
$s$	1	2	1	0	1	0	30
$t$	0	5	1	0	0	1	80
$P$	-25	-40	-35	0	0	0	0

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

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

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

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





Question 4 continued

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

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

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(Total 12 marks)

Q4

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5. (a)

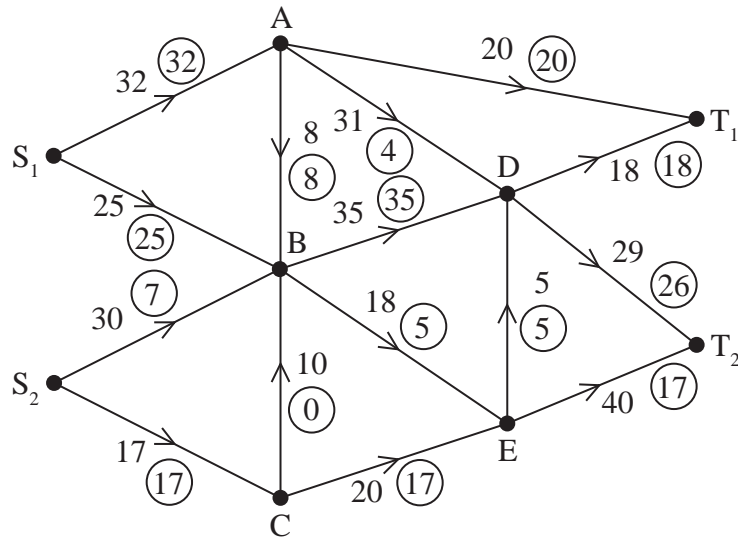


Diagram 1

(b)

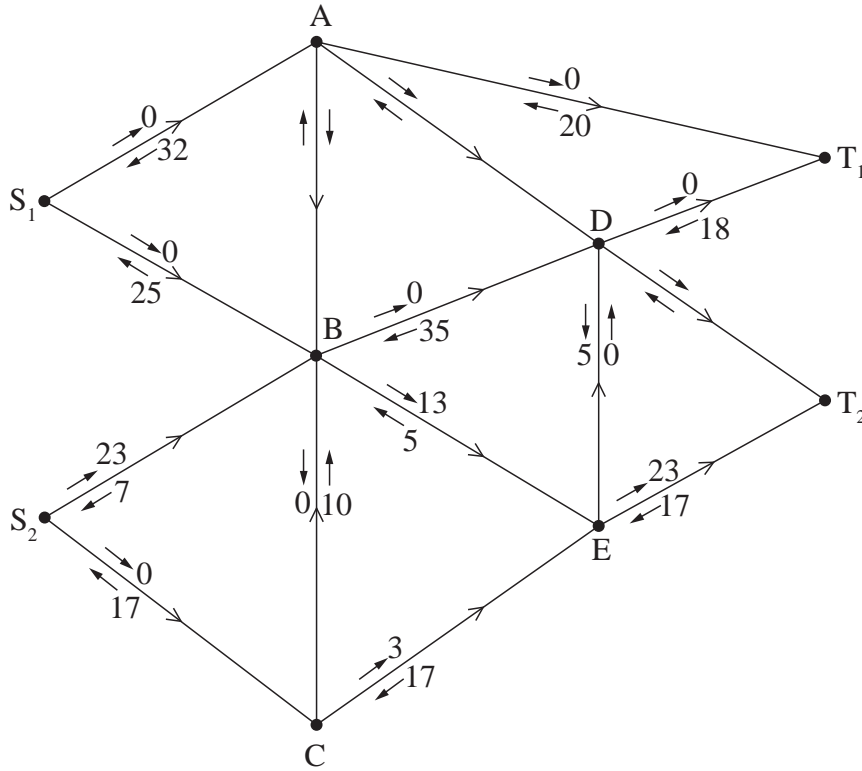


Diagram 2



**Question 5 continued**

(c)

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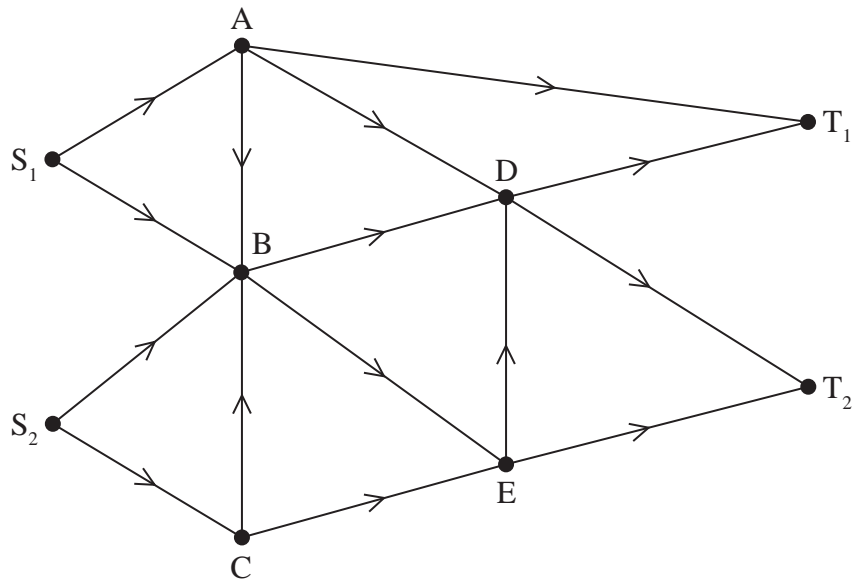
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(d)



**Diagram 3**

(e)

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**(Total 13 marks)**

<b>Q5</b>	





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blank

**Question 6 continued**

A series of horizontal lines for writing the answer to Question 6.

**(Total 7 marks)**

Q6



7.

		Number of workers				
		0	1	2	3	4
T O Y S	Bicycle	0	80	170	260	350
	Dolls House	0	95	165	245	335
	Train Set	0	100	180	260	340

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

<b>Stage</b>	<b>State</b>	<b>Action</b>	<b>Dest.</b>	<b>Value</b>
Bicycle				



Question 7 continued

Stage	State	Action	Dest.	Value

Toy	Bicycle	Dolls house	Train set
Number of workers assigned			

Total number of toys made \_\_\_\_\_

Q7

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(Total 13 marks)

**TOTAL FOR PAPER: 75 MARKS**

**END**



P 4 3 1 5 8 A 0 1 5 1 6