

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

Paper Reference(s)

6690/01

Edexcel GCE

Decision Mathematics D2

Advanced/Advanced Subsidiary

Thursday 31 May 2012 – 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	
7	
8	
Total	

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Turn over

PEARSON

2. (a)

	A	B	C	D	E	F
A	-	16	25	21	12	15
B	16	-	24	22	21	12
C	25	24	-	18	30	27
D	21	22	18	-	15	12
E	12	21	30	15	-	18
F	15	12	27	12	18	-



3.

	D	E	F	G	Supply
A	17	19	21	20	18
B	21	20	19	22	23
C	18	17	16	21	29
Demand	15	24	18	13	

	D	E	F	G	Supply
A					18
B					23
C					29
Demand	15	24	18	13	

	D	E	F	G	Supply
A					18
B					23
C					29
Demand	15	24	18	13	

	D	E	F	G	Supply
A					18
B					23
C					29
Demand	15	24	18	13	

	D	E	F	G	Supply
A					18
B					23
C					29
Demand	15	24	18	13	

	D	E	F	G	Supply
A					18
B					23
C					29
Demand	15	24	18	13	



Question 3 continued

	D	E	F	G	Supply
A					18
B					23
C					29
Demand	15	24	18	13	

	D	E	F	G	Supply
A					18
B					23
C					29
Demand	15	24	18	13	

	D	E	F	G	Supply
A					18
B					23
C					29
Demand	15	24	18	13	

	D	E	F	G	Supply
A					18
B					23
C					29
Demand	15	24	18	13	

	D	E	F	G	Supply
A					18
B					23
C					29
Demand	15	24	18	13	

	D	E	F	G	Supply
A					18
B					23
C					29
Demand	15	24	18	13	

Q3

(Total 12 marks)

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4.

b.v.	x	y	z	r	s	t	Value
r	5	$\frac{1}{2}$	0	1	0	0	5
s	1	-2	4	0	1	0	3
t	8	4	6	0	0	1	6
P	-5	-7	-4	0	0	0	0

(a) 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								



5.

	Fiendish uses plan 1	Fiendish uses plan 2	Fiendish uses plan 3
Air	0	4	5
Sea	2	-3	1
Land	-2	3	-2

Handwritten area with horizontal lines.



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Question 5 continued

Lined writing area for the answer to Question 5.

(Total 9 marks)

Q5



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

6. (a) Value of initial flow _____

(b)

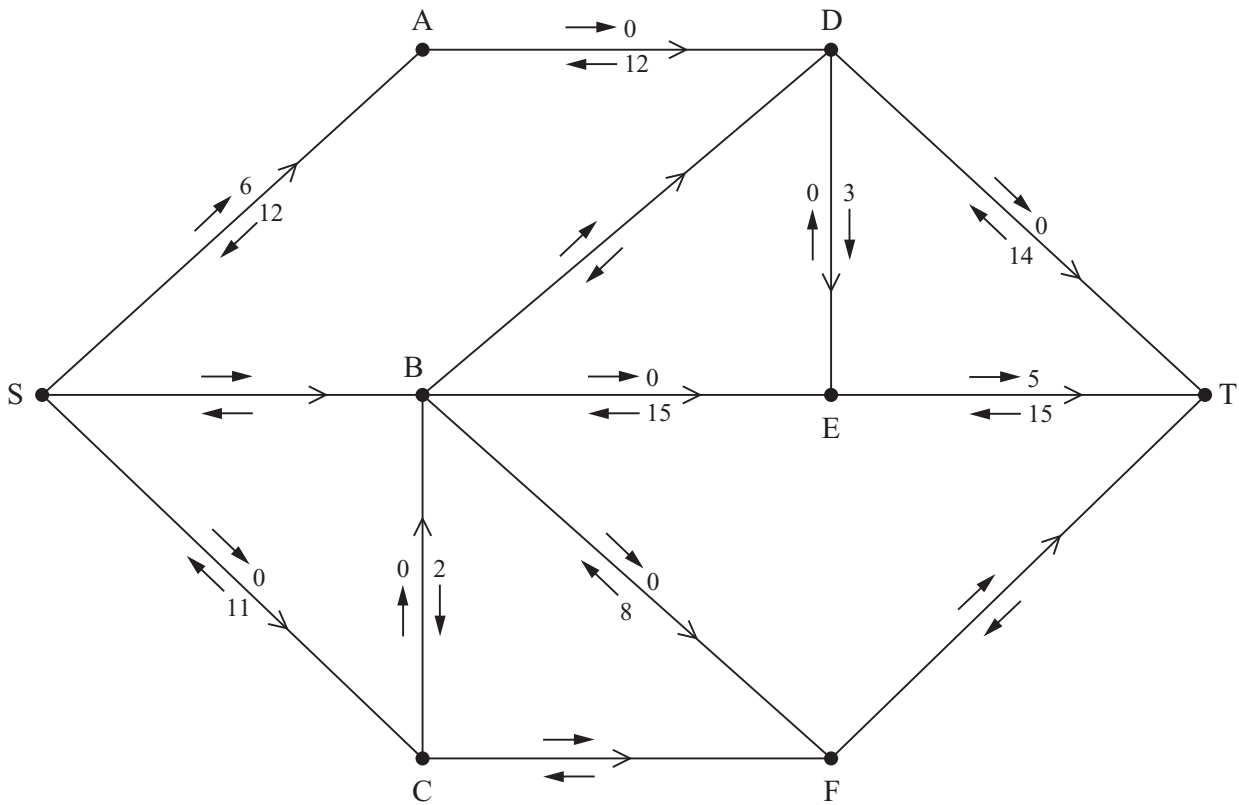


Diagram 1



Question 6 continued

(c)

(d)

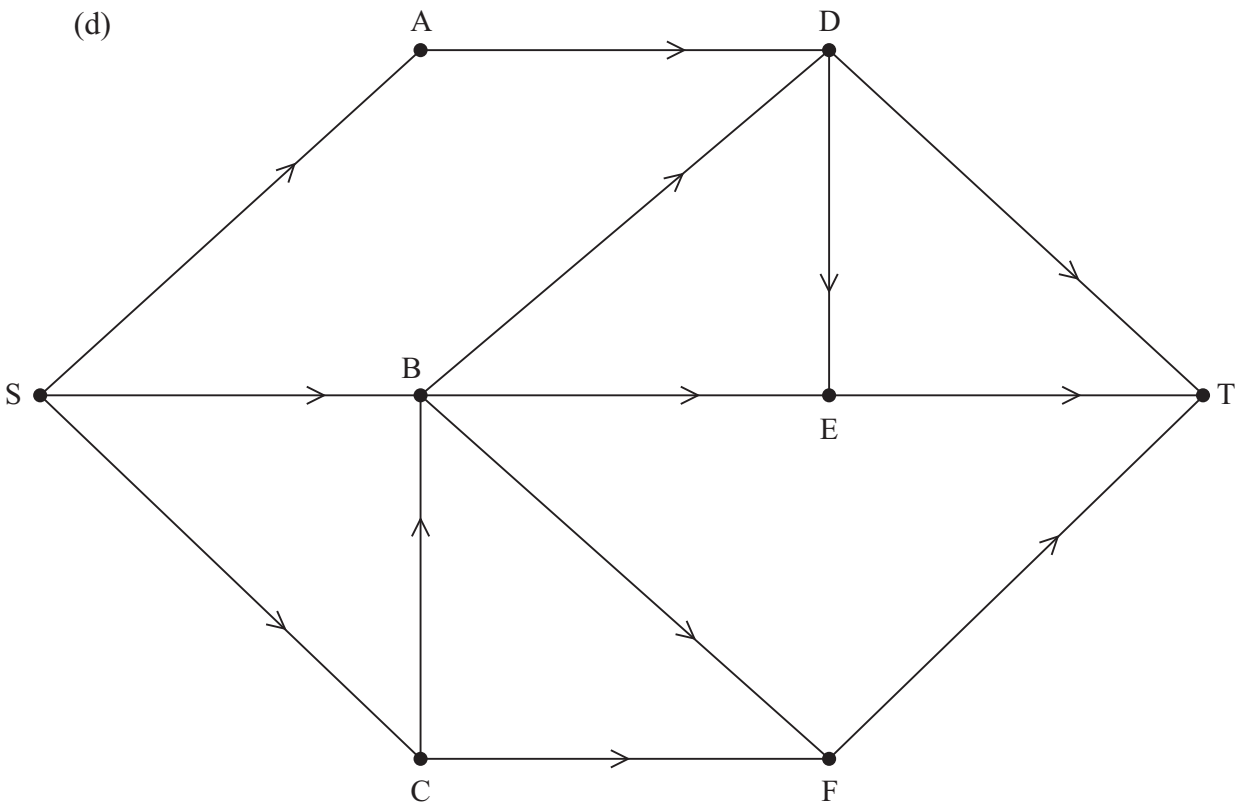


Diagram 2

(e)

(Total 11 marks)

Q6

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8. You may not need to use all of these rows

Stage (Month)	State (Number of robots in store at start of month)	Action (Number of robots made during month)	Dest. (Number of robots in store at end of month)	Value



Question 8 continued

Stage	State	Action	Dest.	Value

Month	Jan	Feb	March	April
Number of robots made				

(Total 12 marks)

Q8

TOTAL FOR PAPER: 75 MARKS

END

