



1.

	1	2	3	4
A	19	16	23	-
B	24	-	30	23
C	18	17	25	18
D	24	24	26	24

	1	2	3	4
A				
B				
C				
D				

	1	2	3	4
A				
B				
C				
D				

	1	2	3	4
A				
B				
C				
D				

	1	2	3	4
A				
B				
C				
D				

	1	2	3	4
A				
B				
C				
D				

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### Question 1 continued

	1	2	3	4
A				
B				
C				
D				

	1	2	3	4
A				
B				
C				
D				

	1	2	3	4
A				
B				
C				
D				

	1	2	3	4
A				
B				
C				
D				

	1	2	3	4
A				
B				
C				
D				

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(Total 10 marks)

Q1

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2.

	A	B	C	D	E	F
A	–	90	130	85	35	125
B	90	–	80	100	83	88
C	130	80	–	108	106	105
D	85	100	108	–	110	88
E	35	83	106	110	–	75
F	125	88	105	88	75	–

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## Question 2 continued

	A	B	C	D	E	F
A	–	90	130	85	35	125
B	90	–	80	100	83	88
C	130	80	–	108	106	105
D	85	100	108	–	110	88
E	35	83	106	110	–	75
F	125	88	105	88	75	–

Q2

(Total 10 marks)



3.

b.v.	$x$	$y$	$z$	$r$	$s$	$t$	Value
$r$	5	3	$-\frac{1}{2}$	1	0	0	2500
$s$	3	2	1	0	1	0	1650
$t$	$\frac{1}{2}$	-1	2	0	0	1	800
$P$	-40	-50	-35	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
$P$								



**Question 3 continued**

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

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

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

(b)

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**(Total 12 marks)**

**Q3**

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4.

	B plays 1	B plays 2	B plays 3	B plays 4
A plays 1	2	-1	1	-3
A plays 2	-3	2	-2	1

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**Question 5 continued**

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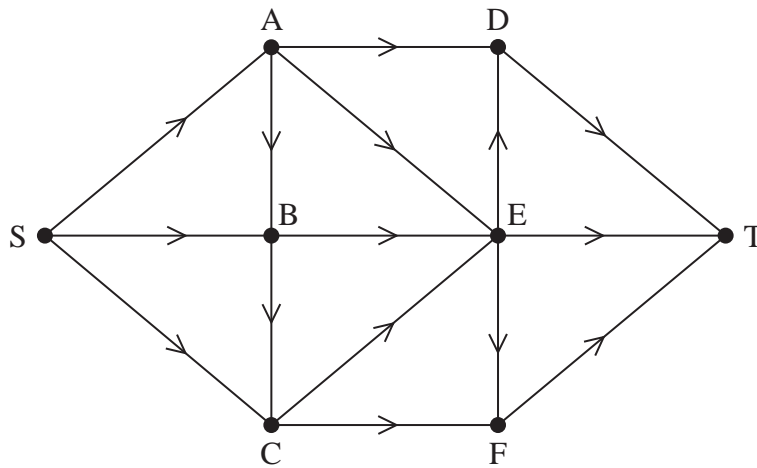
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(d)



**Diagram 2**

(e)

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**(Total 11 marks)**

**Q5**

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**Question 7 continued**

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

Production schedule

Month	March	April	May	June	July
Number made					

Minimum production cost £ \_\_\_\_\_

**Q7**

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**(Total 14 marks)**

**TOTAL FOR PAPER: 75 MARKS**

**END**

