

Answer Booklet. Paper Reference: 6689/01

Paper Reference(s)

6689

Edexcel GCE

Decision Mathematics D1

Advanced/Advanced Subsidiary

May 2002

Answer Booklet

1. _____

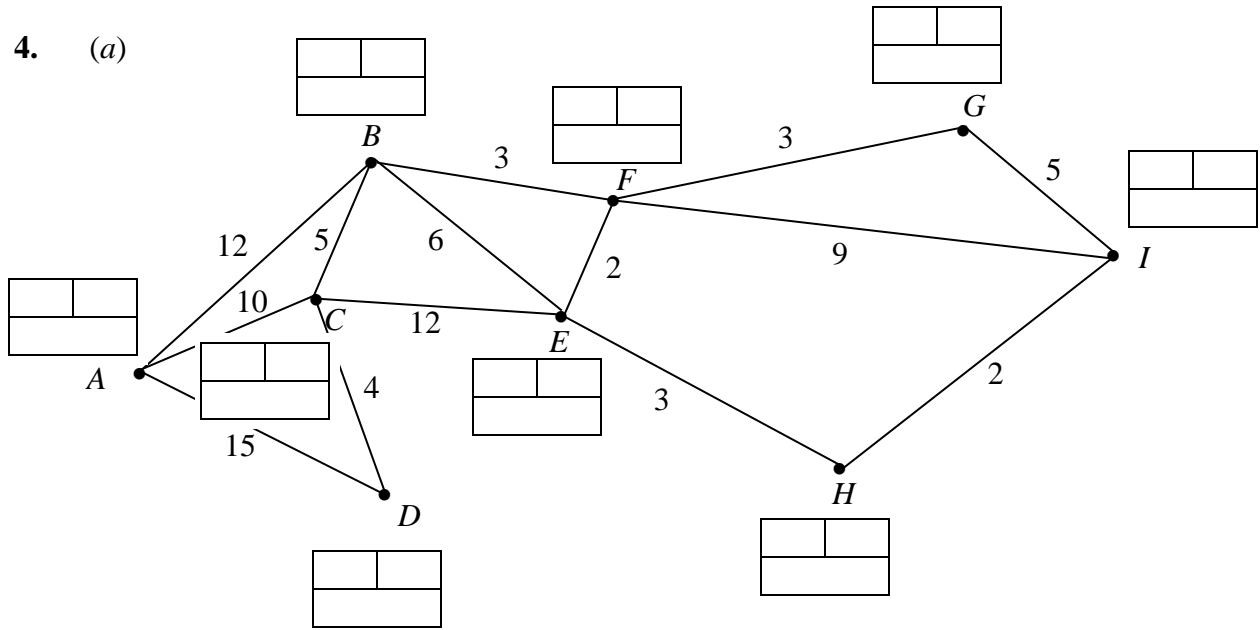
2. _____

3.



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4. (a)



Shortest route

Length of shortest route

(b) (i)

(ii)

(iii)

leave
blank

5. (a)

<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>	<i>f</i> = 0?

(b)

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(c)

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6. (a) Critical activities

Length of critical path

(b) Total floats of remaining non-critical activities

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(c)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

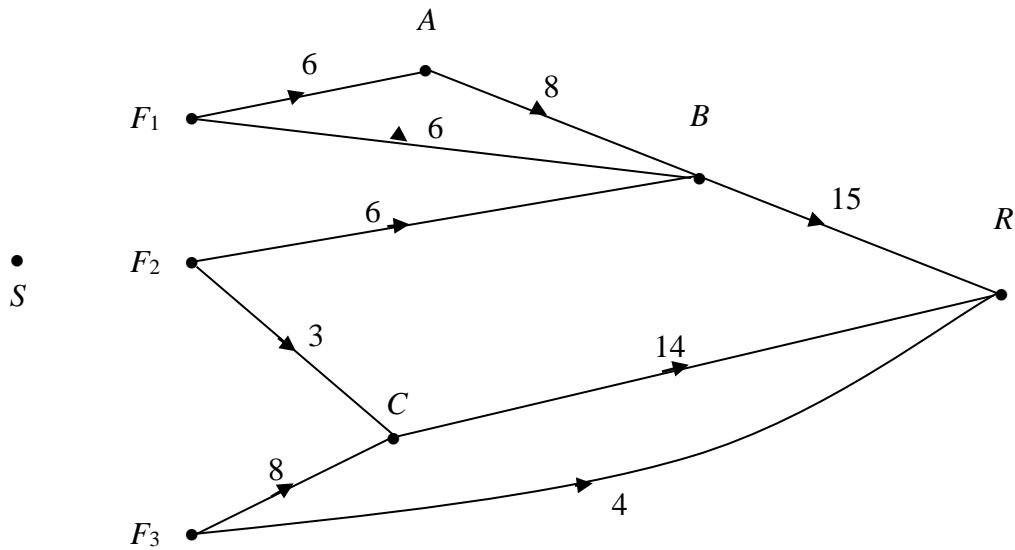
(d)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25

Minimum number of workers

7. (a)

Diagram 1



Capacity of arcs added

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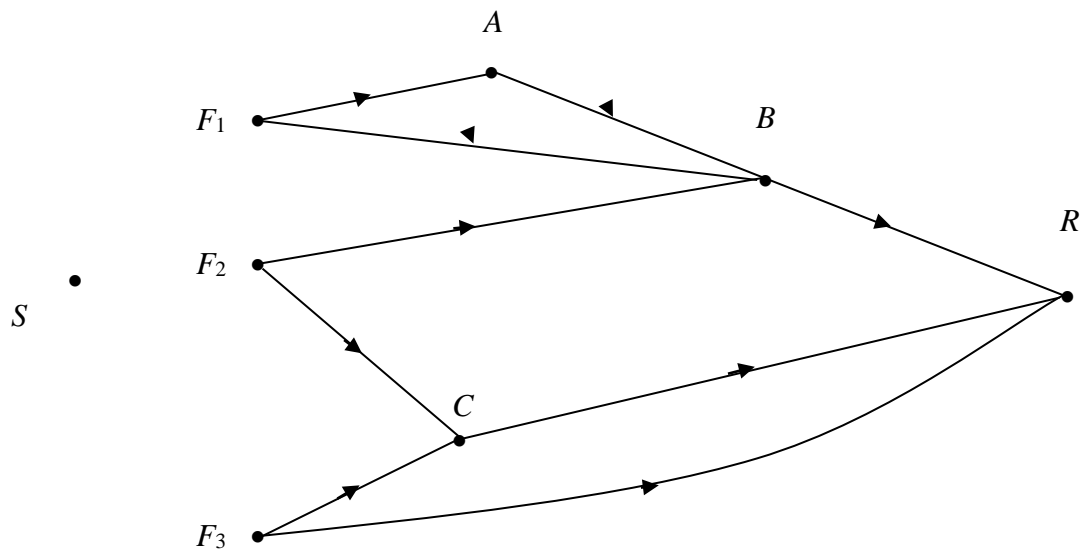
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(b) (i) Maximum flow along $SF_1ABR =$

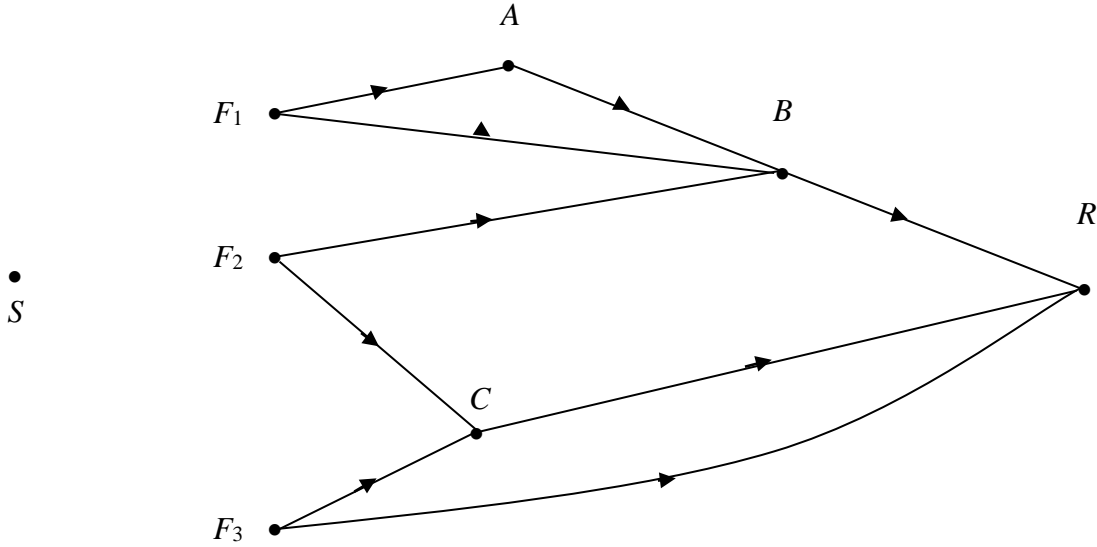
$SF_3CR =$

(ii) **Diagram 2**



(c) (i)

Diagram 3



Flow augmenting paths

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(ii)

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8. (a)

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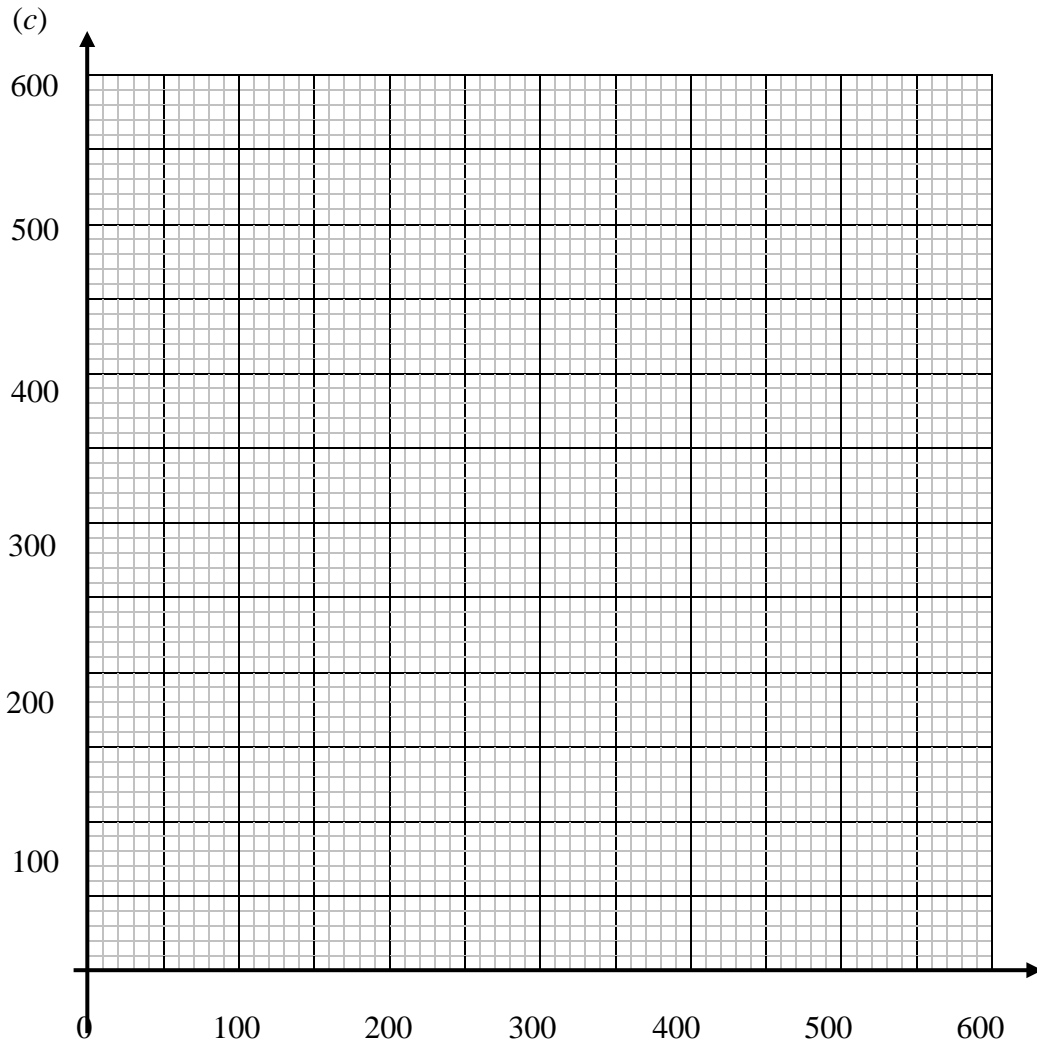
(b)

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Optimal value of x Optimal value of y Total cost £.....

(d)

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END