

Answer Book

1. (a)

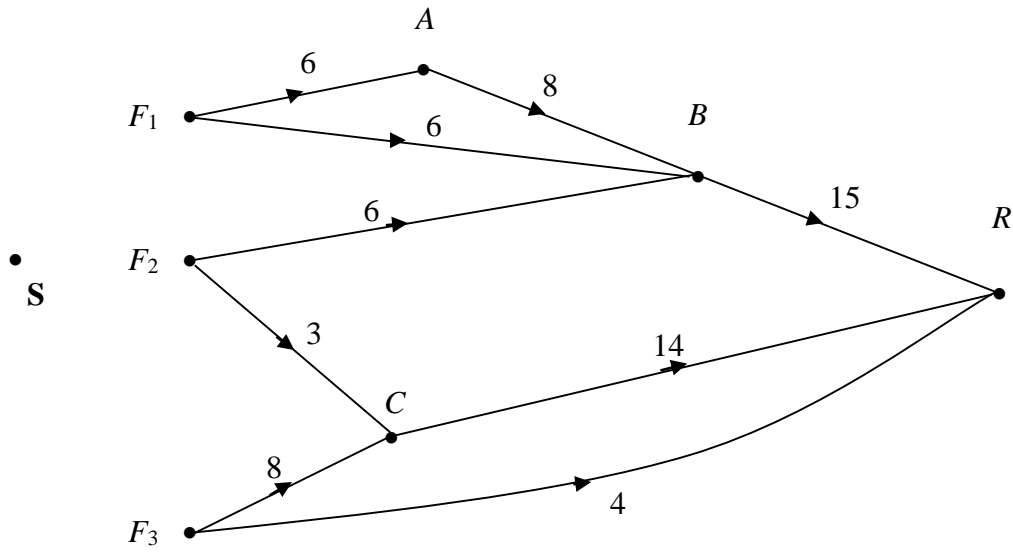
	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>
<i>A</i>	0	20	30	32	12	15
<i>B</i>	20	0	10			16
<i>C</i>	30	10	0	15		19
<i>D</i>	23		15	0	20	
<i>E</i>	12			20	0	16
<i>F</i>	15	16	19		16	0

6.

	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>	<i>F</i>
<i>A</i>	–	85	110	175	108	100
<i>B</i>	85	–	38	175	160	93
<i>C</i>	110	38	–	148	156	73
<i>D</i>	175	175	148	–	110	84
<i>E</i>	108	160	156	110	–	92
<i>F</i>	100	93	73	84	92	–

11. (a)

Diagram 1



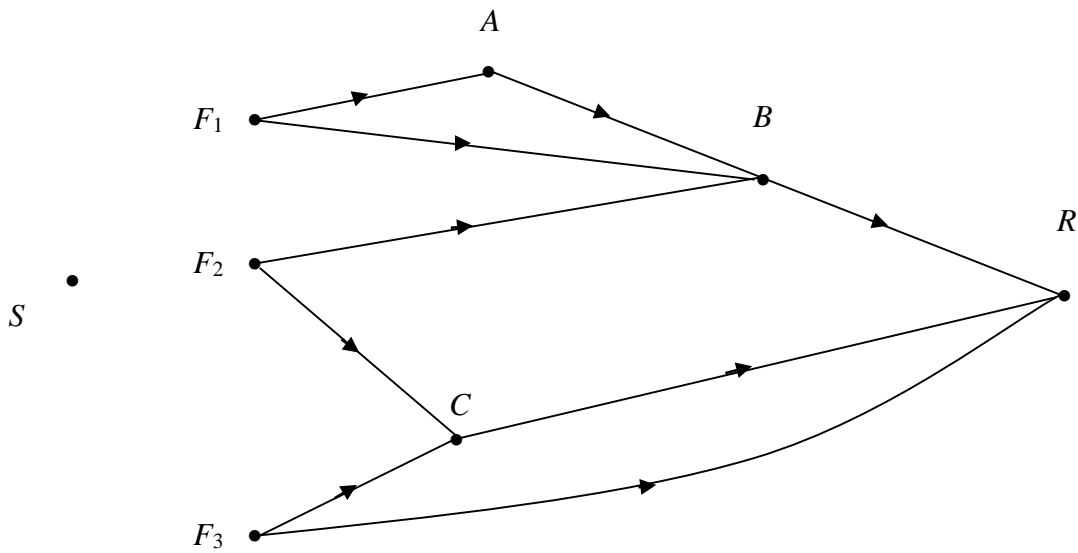
Capacity of arcs added

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

$SF_3CR =$

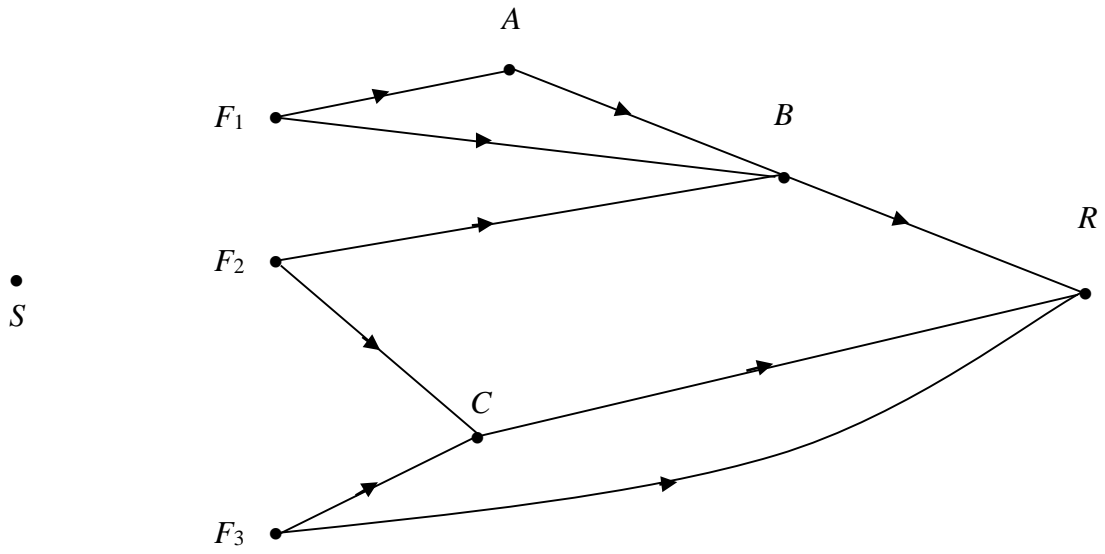
(ii)

Diagram 2



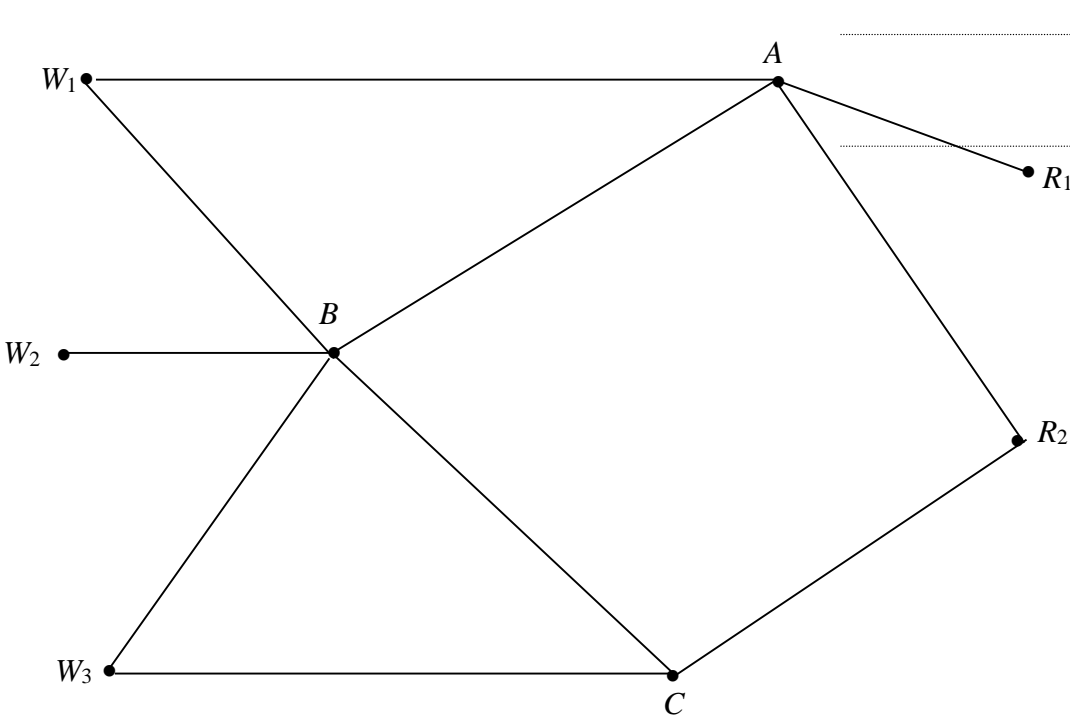
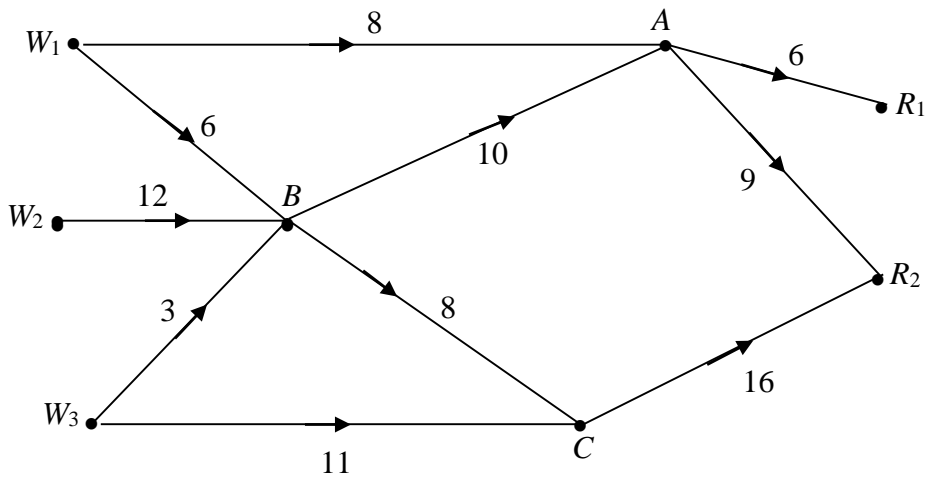
(c) (i)

Diagram 3



12. (a)

Diagram 1



(b) (i) W

W₁ A R₁ R

(ii) W

W₃ C R₂ R

(c)

Diagram 2