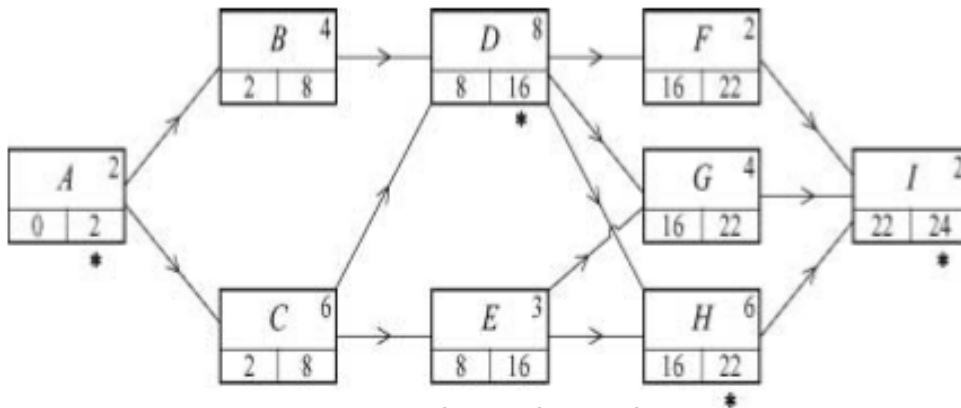



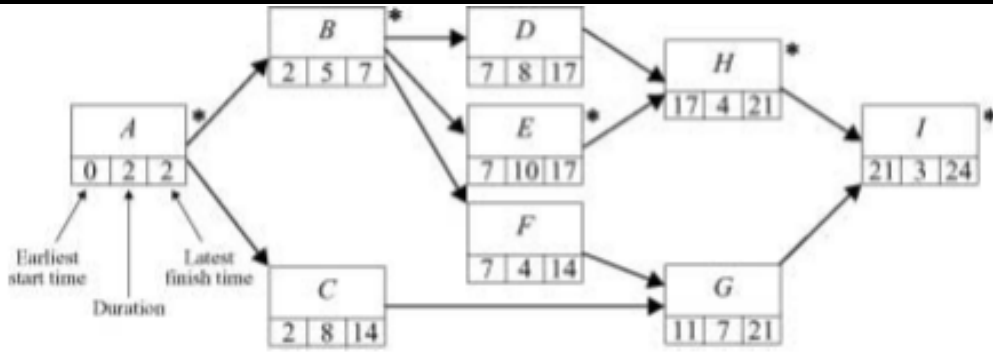
Decision 2 Critical Path Analysis Answers

3(a)



	Activity network SCA	M1 A1 A1	3	almost correct (up to 2 slips) all correct
(b)	Forward pass for earliest times	M1 A1	2	
(c)	Backward pass	M1 A1	2	
(d)	Critical path is ACDHI Minimum completion 24 days	B1 B1	2	
(e)	Non-critical Float	M1 A1✓	2	At least 3 activities and float in one activity ✓ correct ✓ their earliest and latest times
(f)		M1 A1 M1	4	Histogram ≤ 11 Correct Rest as histogram – generally start activities ok
(g)	Problems with D & E solved by E coming after D Problem at 16-18 days with F can be solved by moving F to 20-22 Must overrun by equivalent to duration of E (3 days)	M1 A1 B1	3	All correct
	Total		18	

1(a)



(b) Forward pass for earliest start times

M1		
A1		
A1	3	SCA (almost correct 2 slips) Correct

(c) Backward pass for latest finish times

M1		
A1	2	All correct
M1		
A1	2	All correct

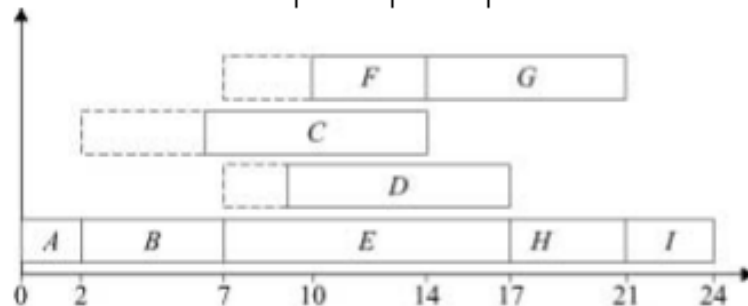
(d) Critical path *A B E H I*

B1	1	
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Non critical	C	D	F	G
Float	4	2	3	3

M1		
A1	2	At least one float time correct All correct

(f)



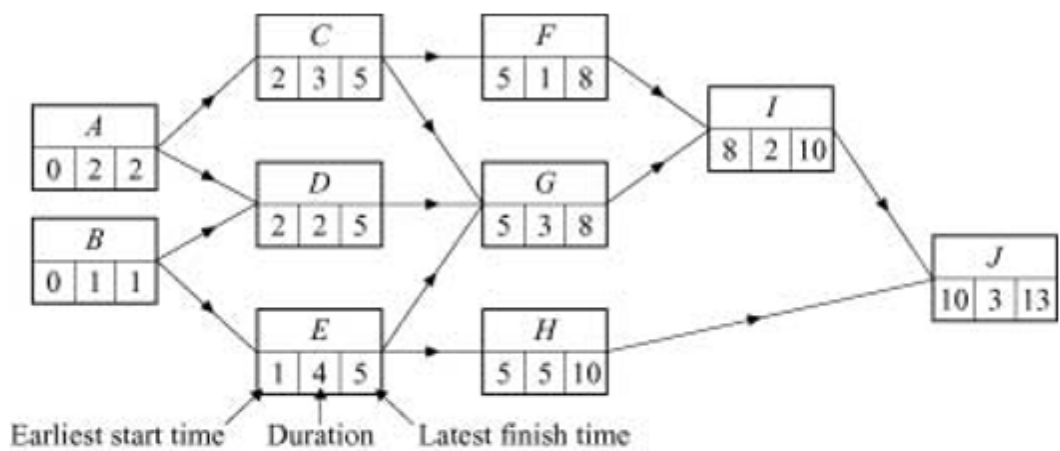
'their' critical path on chart
C from 6 to 14 (with space 2-6)

D from 9 to 17 (with slack 7-9)
F & G from 10 to 21 with appropriate slack

B1✓		
M1		One other activity (condone no slack or earliest start)
A1		
A1	4	2 other non critical activities All correct

Total 14

1(a)	Network attempted	M1		SCA
	up to 2 slips (boxes or arrows)	A1		
	correct network	A1	3	



(b)	Forward pass	M1		
	correct	A1	2	
(c)	Backward pass	M1		
	correct	A1	2	
(d)	Minimum completion time: 13 weeks	B1		
	Critical paths: <i>ACGIJ</i>	B1		
	<i>BEGIJ</i>	B1		
	<i>BEHJ</i>	B1	4	
Total			11	

1(a)

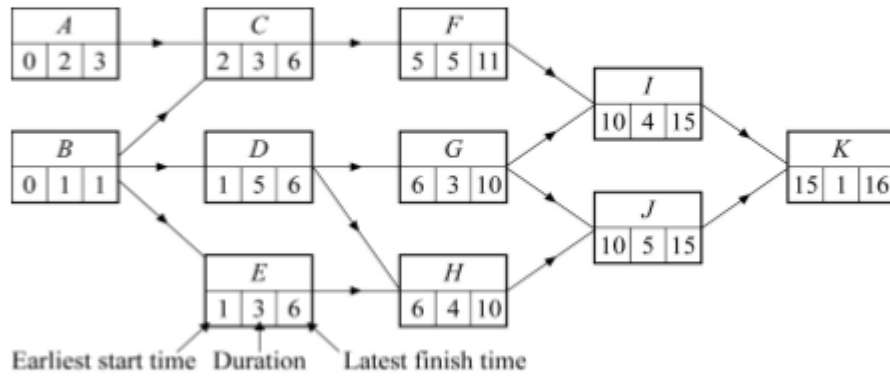
Activity	Immediate Predecessors
A	-
B	-
C	A, B
D	B
E	B
F	C
G	D
H	D, E
I	F, G
J	G, H
K	I, J

M1
A1

2

Up to 2 slips
All correct

(b)



M1
A1

4

Start times – up to 1 slip with FT
All correct
Finish times – up to 1 slip; FT 'their 16'
All correct; CSO

(c)

Critical path *B D H J K*
Minimum time 16 days

B1
B1

2

(d)

Greatest float at E
Value = 2

B1✓
B1✓

2

Total

10