5. The precedence table shows the eleven activities required to complete a project.

Activity	Immediately preceding activities
A	–
B	–
C	–
D	A, B
E	A, B
F	B, C
G	B, C
H	D
I	D, E, F, G
J	H, I
K	D, E, F

(a) Draw the activity network for the project, using activity on arc and the minimum number of dummies.

(5)

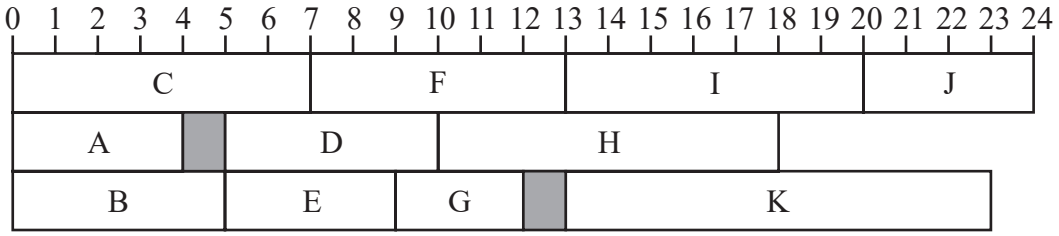


Figure 3

Figure 3 shows a schedule for the project. Each of the activities shown in the precedence table requires one worker. The time taken to complete each activity is in hours and the project is to be completed in the minimum possible time.

(b) (i) State the minimum completion time for the project.

(ii) State the critical activities.

(iii) State the total float on activity G and the total float on activity K.

(4)

(Total for Question 5 is 9 marks)