Network diagram

Aug sep 2022

Network diagram : It is a graphical representation of logicaly and sequentially connected arrows and notes represent activities and events in a project.

Activity : it represent some action and Jesus time consuming effort necessary to complete a particular part of overall project

Preceding activity: that must be accomplished before a given event can occur

Succeeding activity: that cannot be accomplished an event has occurred

Concurrent activity: taking place at the same time are in the same location

Dummy activity which neither consume time are resource but are used simply to represent connection or a link between the events are known as dummies

It is shown in network by a dotted lines

Event :

Beginning and end points of an activity are called event or notes

Rules of network construction

1. Try to avoid the arrow that cross each other
2. use straight arrow
3. No event can occur until a very activity preceding it has been completed
4. An even can't occur twice
5. Dummy should be introduced introduced only if it is extremely necessary
6. Network as only one entry point call start event and one point of emergence called end point
7. Use arrow left to right to avoid mixing two directions

Numbering the events

1. Number must unique
2. Number should be carried out on a sequential basis from left to right
3. Initial event must be number as one
4. **Number all new start points 2 3 and so on**

9. C

Develop a network diagram for a project whose activities and preceding activities with duration are given below
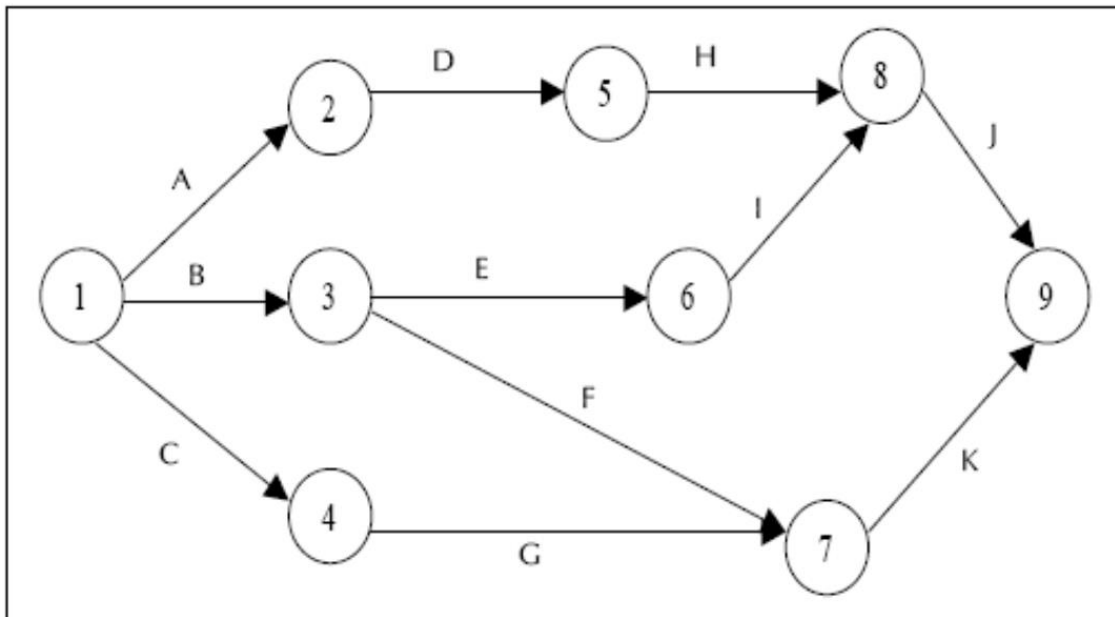
Acitvities	Predecessor	Duration
A	-	3
B	A	4
C	A	2
D	B	5
E	C	1
F	C	2
G	D,E	4
H	F,G	3
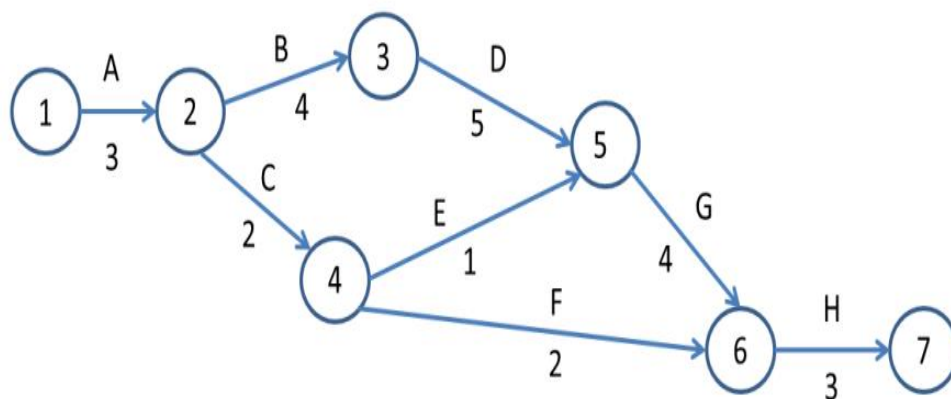
MARCH 22

5 (d) Construct a network diagram for a project whose activities and their predecessor relationship given below

Activities	A	B	C	D	E	F	G	H	I	J	K
Predecessor	--	--	--	A	B	B	C	D	E	H,I	F,G

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9 (c). The following activities constitute a project. Construct the network to represent the project and also identify the critical path. Also Write all the project paths possible

Acitvities	Duration
1-2	8
1-3	8
1-4	10
2-4	10
2-6	16
3-5	18
3-6	14
4-5	17
5-6	9
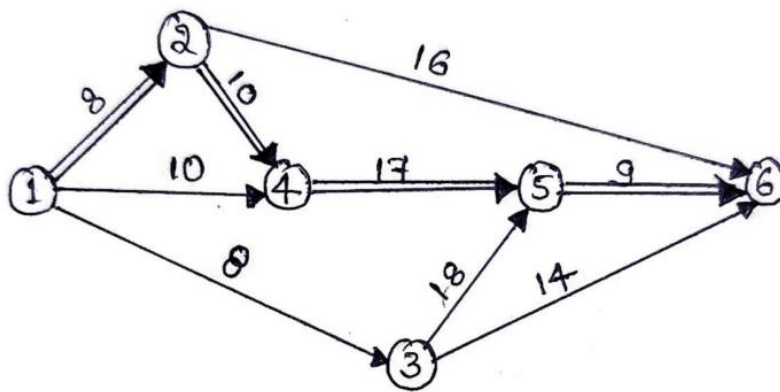
Fig. Network Diagram of a project

| Acitvities	Duration
1-2-6	8+16 = 24
1-2-4-5-6	8+10+17+9= 44
1-4-5-6	10+17+9= 36
1-3-5-6	8+18+9=35
1-3-6	8+14=22

The Path: 1-2-4-5-6, the longest in time takes 44 days, Therefore, is the Critical path. It is represented by Double lines in Network Diagram.

Note: Any other network method to find critical path other tan this also can be considered.

Extra questions :

Develop a network diagram for a project whose activities and preceding activities with duration are given below

Acitvities	Predecessor
A	-
B	A
C,D	B
E	C
F	D
G	E,F
G	D,E

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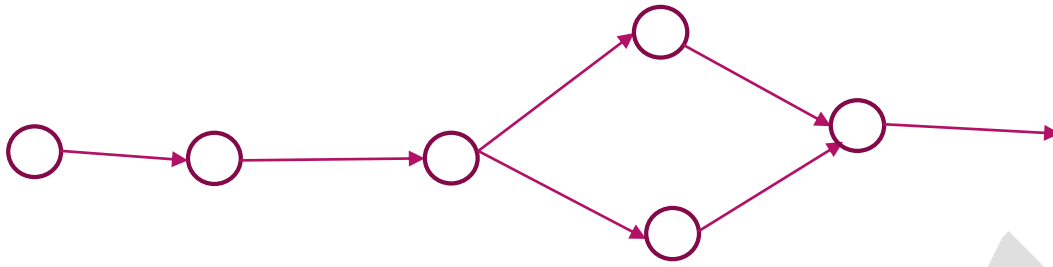
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