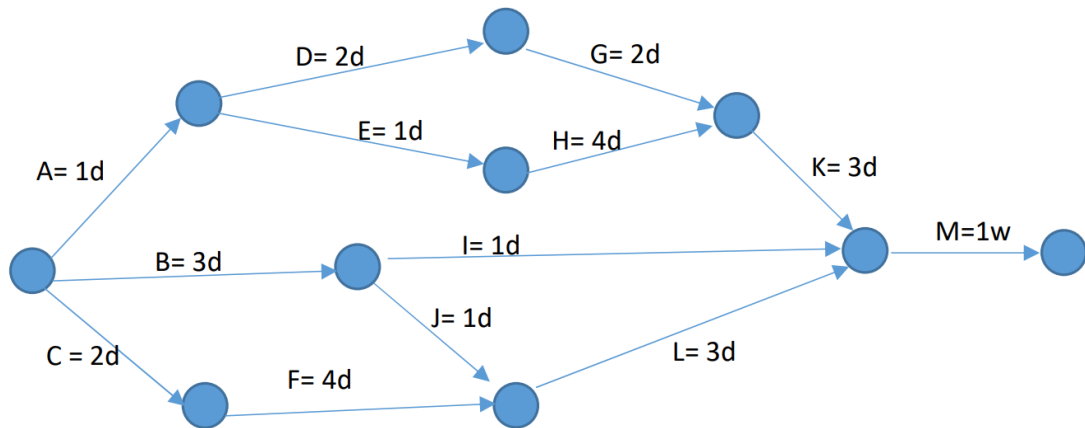# Assignment

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Q.1

Critical path(s)

- A -> E -> H -> K -> M
- C -> F -> L -> M

Critical tasks

- A
- C
- E
- F
- H
- K
- L
- M

Calculate the project end date

Considering Saturday and Sunday as non-working days.

November 24th 2020.

For each task calculate and fill the table

Task	Early Start	Early Finish	Late Start	Late Finish	Free Float(days)	Total Float(days)
A	November 2nd	November 3rd	November 2nd	November 3rd	0	0
B	November 2nd	November 5th	November 4th	November 9th	0	2
C	November 2nd	November 4th	November 2nd	November 4th	0	0
D	November 3rd	November 5th	November 4th	November 6th	0	1
E	November 3rd	November 4th	November 3rd	November 4th	0	0
F	November 4th	November 10th	November 4th	November 10th	0	0
G	November 5th	November 9th	November 6th	November 10th	1	1
H	November 4th	November 10th	November 4th	November 10th	0	0
I	November 5th	November 6th	November 12th	November 13th	5	5
J	November 5th	November 6th	November 9th	November 10th	2	2
K	November 10th	November 13th	November 10th	November 13th	0	0
L	November 10th	November 13th	November 10th	November 13th	0	0
M	November 13th	November 24th	November 13th	November 24th	0	0

Q.2 Calculate EMV of projects A and B and determine favorable project

Project A

Event	Probability	Outcome (in Rs.)
E1	0.1	100,000
E2	0.3	- 150,000
E3	0.6	80,000

Project B

Event	Probability	Outcome (in Rs.)
E4	0.25	75,000
E5	0.1	- 10,000
E6	0.65	60,000

$$EMV(Project\ A) = \Sigma(probability * Outcome)$$
$$EMV(Project\ A) = 0.1 * 100,000 + 0.3 * -150,000 + 0.6 * 80,000 = ₹13,000$$

$$EMV(Project\ B) = \Sigma(probability * Outcome)$$
$$EMV(Project\ B) = 0.25 * 75,000 + 0.1 * -10,000 + 0.65 * 60,000 = ₹56,750$$

Project A is much more favorable than Project B, Since the EMV is less.