3/81

3012N1149

Candidate's Seat No:____

MBA (SCM) Sem.-3 Examination
SC 307
PM&R
December-2025

Time : 2.30 Hours]

[Max.Marks : 70

Q-1 A) Explain consequences of Poor Project Management and also explain how to avoid delays. **14**

Q-2 **14**

A) A firm is planning to acquire a new machine that requires an initial cash outlay of Rs. 48,000. The machine has a useful economic life of two years without any salvage value thereafter. The cash flows and their related probabilities for the two years are given as below:

Year	Event	CFAT (in Rs.)	Prob.
Year 1	A	19,200	0.2
Year 1	B	26,400	0.6
Year 1	C	36,000	0.2

In the second year the CFAT, corresponding the events A, B and C have the following possible probable occurrences.

Year	Event	CFAT (Rs.)	Prob.	Event	CFAT (Rs.)	Prob.	Event	CFAT (Rs.)	Prob.
Year 2	A1	9,600	0.3	B1	31,200	0.2	C1	38,400	0.1
Year 2	A2	24,000	0.4	B2	36,000	0.6	C2	48,000	0.8
Year 2	A3	36,000	0.3	B3	38,400	0.2	C3	57,600	0.1

Given that the required rate of return is 9%, suggest the acceptability of this project by applying the technique of decision tree analysis.

OR

B) A company has to make a choice between two projects A and B. The initial investment of two projects are Rs. 9,30,000 and Rs. 17,70,000 respectively for A and B. the scrap values after 5 years are Rs. 60,000 and Rs. 1,50,000 respectively. The opportunity cost of capital of the company is 14%. The annual cash flows are as under:

Year	Project A (Rs.)	Project B (Rs.)

P.T.O

1	30,000	3,60,000
2	2,40,000	8,04,000
3	7,32,000	8,76,000
4	6,54,000	8,22,000
5	3,45,000	6,30,000

You are required to suggest the acceptability of these mutually exclusive projects on the basis of Profitability Index, Net Present Value and Payback Period Method.

Q-3 (14)

A) Explain project life cycle.

OR

B) Mr. X has borrowed Rs. 12,00,000 to be paid in 7 equal instalments (principal plus interest). The rate of interest is 15 %. Prepare an amortization schedule. [(PVIF 15%, 5) =0.497, (PVIFA 5%,15) = 10.380, (PVIFA 15%, 5) = 3.352] (07)

B) A company has on its books the following amounts of capital and specific costs of each type of capital. (07)

Types of capital	Book value	Market value	Specific cost
Debentures	24,00,000	22,80,000	7%
Preference share capital	12,00,000	7,20,000	10%
Equity share capital	36,00,000		15%
Retained earnings	12,00,000	64,80,000	11%

Determine the weighted average cost of capital using (a) Book value weights (b) Market value weights.

Q-4 (14)

A) Find critical path of the following project and estimate EST, EFT, LST, LFT and total float, free float and independent float and interfering float time for different jobs.

Activity	Duration
1-2	6
1-3	5
2-4	10
3-4	3
3-5	4
4-5	6
4-6	2
5-6	9

OR

B) The project, "Apex Office Tower HVAC System Upgrade," involved replacing the entire Heating, Ventilation, and Air Conditioning (HVAC) system in an existing 10-story office building.

	Original Budget (Planned Value, PV): 10,00,000 Planned Duration: 20 weeks Key Deliverable: Installation and testing of 10 new rooftop units (1 unit per floor). Status Date At the end of Week 10, the Project Manager calculated the following status:	

Metric	Value	Notes
Percentage of Completion (Work Performed)	50%	5 out of 10 rooftop units were fully installed and tested.
Actual Cost (AC)	5,50,000	Total money spent so far, including equipment and labor.
Planned Value (PV) at Week 10	5,00,000	The budget for 50% completion (50% of 2,50,000).
Earned Value (EV)	4,50,000	The budgeted cost for the work actually completed (The units installed were from floors 1-5, which were slightly cheaper/less complex than floors 6-10).

	Do Variance Analysis of above project by taking Cost Variance, Schedule Variance and Variance at Completion give your suggestions.	
Q-5	A) What is Research Design? Explain any three types of Research Design. A) Write Short Note on Proposal Writing	07 07