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**IV Semester M.B.A. (Day & Evening) Degree Examination,
November/December - 2025**

MANAGEMENT

**Project Management and Analysis
(CBCS Scheme 2019 Onwards)**

Paper : 4.2.1

Time : 3 Hours

Maximum Marks : 70

SECTION - A

Answer any FIVE questions from the following each question carries 5 marks.

(5×5=25)

- Discuss structures of PPP and financing sources for PPP projects in India.
- Briefly explain the methods of financing the infrastructure projects.
- Snowy Ltd. is considering two machines, L & M. though designed differently, they serve the same function. Machine L, a standard model, costs Rs. 1,75,000 and lasts for 5 years. Its annual operating costs will be Rs. 35,000. Machine B, an economy model, costs Rs. 1,50,000 but lasts for only 3 years. Its annual operating costs will be Rs. 30,000. How should Snowy Ltd. choose between the two machines?
- A Company is considering an investment proposal involves an outlay of Rs.45,00,000 The expected C.I.F. is as follows:

Year	1	2	3	4
C.I.F	10,00,000	15,00,000	20,00,000	25,00,000

The risk free interest rate is 5%. The management assigned the following certainty equivalent coefficient for the expected cash flow. 0.90, 0.85, 0.82, and 0.78. Based on the above information determine the NPV of the proposal

- Prepare a Scenario Analysis statement from the following information pertaining to a project.

Particulars	In Million
Investment	250
Sales	200
Variable cost 60% of Sales	120
Fixed cost	20
Depreciation cost	25
Pre-tax profit	35

[P.T.O.]



Tax	10
PAT	25
Cash flow from the operation	50
Net Cash flow	50
Life	10 Years

What is the NPV of the project assuming the Cost of Capital of 13%. The range of value of the underlined variables is shown as under.

<u>Underlined Variable</u>	<u>Pessimistic</u>	<u>Expected</u>	<u>Optimistic</u>
Investment	300	250	200
Variable Cost as % of Sales	65%	60%	56%

6. The following information is given about Revenue and cost for a company XYZ

<u>Particulars</u>	<u>Amount (INR)</u>
Investment	20,000
Sales	18,000
Variable Cost (2/3 rd of Sales)	12,000
Fixed Cost	1,000
Depreciation(10% fixed)	2,000

- Assuming that the cost of Capital is 12% and tax rate 33.33% and Life 10 years. Calculate the NPV.
- Calculate the effect of variation in investment assuming investment under two situations Rs.24,000 and Rs.18,000
- Assuming equal probability of all the three investment amount. What is the risk of the project in terms of SD of NPV.

7. Mr. Risky is considering two mutually exclusive projects A and B each involves an investment of Rs. 50,000. You are required to advise him about the acceptability of the projects from the following information.

<u>Project X</u>			<u>Project Y</u>	
<u>Year</u>	<u>Cash Inflow</u>	<u>Certainty Co-efficient</u>	<u>Cash Inflow</u>	<u>Certainty Co-efficient</u>
1	30,000	0.8	40,000	0.9
2	40,000	0.9	20,000	0.8
3	20,000	0.7	30,000	0.7
4	15,000	0.9	10,000	0.6

Risk free cutoff rate may be assumed at 15%

**SECTION - B**

Answer any **THREE** questions from the following each question carries **10** marks.
(3×10=30)

8. What are the objectives of the project feasibility study? Explain briefly the marketing, financial and technical aspects of a project feasibility study.
9. Prepare a financial projection including Projected Income Statement, Projected Cash flow Statement and Projected Balance Sheet for the year n+1 on the basis of the following limited information available for the year n

Particulars	Amount
Sales	2000 Lakhs
Expected growth rate	40%
Net Profit Margin	20%
Dividend Payout Ratio	40%
Tax	50%

Balance Sheet

Liabilities	Amount	Assets	Amount
Share Capital	350	Fixed Assets	800
Retained Earnings	300	Current Assets	940
Loans and Liabilities	1090		
	1740		1740

Additional Information:

- a) The Expected Growth Rate of 40% is assumed to be applicable on sales, current assets and current liabilities.
- b) Expected Growth Rate are not applicable on Share Capital and Fixed Assets.
10. Tours and resort invest in a holiday resort at a cost of Rs. 20 million. Project life is estimated at 20 years during which the annual cash flows will be Rs. 30 Lakh each indication is that 25% there is a probability that Government imposing a GST for revenue.

This will however be being known after one year from now. If imposed the net cash flows will be come down to Rs. 24 Lakh. If tax is not imposed the cash flow will come to Rs. 32 Lakh each year. The required rate of return is 12%.

- a) Ascertain the base case NPV of the project.
- b) Determine the company can wait for one year and proved proceed further.
- c) Assume that no change in investment cost.

[P.T.O.]



11. A company has the following estimates of the present values of the future cash flows after taxes associated with the investment proposal, concerned with expanding the plant capacity. It intends to use a decision-tree approach to get a clear picture of the possible outcomes of this investments. The plant expansion is expected to cost Rs. 3,00,000. The respective PVs of future CFAT and probabilities are as follows:

PV of future CFAT

With Expansion	Without Expansion	Probabilities
3,00,000	2,00,000	0.2
5,00,000	2,00,000	0.4
9,00,000	3,50,000	0.4

Advise the company regarding the financial feasibility of the project

SECTION - C

12. **Compulsory Case Study :**

(1×15=15)

The following table shows job of the network along with their time estimates.

Jobs	Time in Week		
	Optimistic	Most Likely	Pessimistic
1-2	1	7	13
1-6	2	5	14
2-3	2	14	26
2-4	2	5	8
3-5	7	10	19
4-5	5	5	17
6-7	5	8	29
5-8	3	3	9
7-8	8	17	32

- Draw the network diagram for the project based on the given activities.
- Determine the critical path and expected project completion time.
- Compute the probability of completing the project in 40 days.