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Reg. No. | | | | | | | | |

IV Semester M.B.A. Degree Examination, October - 2021

MANAGEMENT

Project Management and Analysis

(CBCS Scheme 2019-20)

Paper - 4.2.1

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Time : 3 Hours **Maximum Marks : 70**

SECTION - A

Answer any **five** questions, each carries **5** marks. **(5×5=25)**

1. Explain the different types of feasibility of a project.
2. Sigma Corporation is evaluating a project whose expected cash flows are as follows :

Year	Cash flow (Rs. in million)
1	-16.0
2	3.2
3	4.5
4	7.0
5	8.4

The cost of capital for Sigma Corporation is 12 percent. What is the NPV of the project?

3. Your company is considering two mutually exclusive projects, A and B. Project A involves an outlay of Rs. 250 million which will generate and expected cash inflow of Rs. 60 million per year for 8 years. Project B calls for an outlay of Rs. 100 million which will produce and expected cash inflow of Rs. 25 million per year for 8 years. The company's cost of capital is 14 percent.
4. Discuss the types of venture capital funds.
5. Explan the key characteristics of PPP's.
6. Write a short note on
   a. Scenario Analysis.
   b. Certainty equivalent Coefficient method.
7. Why negotiation skills is important for a project managers? Justify.

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Section- B

Answer any **three** questions, each carries **10** marks. **(3×10=30)**

8. The following table lists the jobs of a network with their estimates.

Job	Duration (Days)		
	Optimistic	Most likely	Pessimistic
1-2	3	6	13
1-6	2	5	14
2-3	6	12	30
2-4	2	5	8
3-5	5	11	17
4-5	3	6	15
6-7	3	9	27
5-8	1	4	7
7-8	4	19	28

a. Draw the project network,

b. Calculate the length and variance of the critical path, and

c. What is the approximate probability that the jobs on the critical path will be completed in 41 days?

9. Explain the roles and responsibilities of a project manager.

10. Prepare a sensitivity analysis statement from the following :

Particulars	Rs. In Million Years 1 to 10
Investments	(250)
VC (60% of sales)	120
Sales	300
Fixed costs	20
Deprecation	25
Pretax profit	35
Taxes	10
Profit after taxes	25
Cash flow from operations	50
Net cash flow	50

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What is the NPV of the project assuming a cost of a capital of 13%? The range of values of the underlying variables can take is shown below :

Underlying variable	Pessimistic	Expected	Optimistic
Investment	300	250	200
Variable cosst as person of sales	65	60	56

11. Write a short note on

i. Private Equity.

ii. Abandonment Analysis.

iii. Risks in infrastructure project

iv. Adjusted NPV.

Section - C

Compulsory Question. **(1×15=15)**

12. The scientist at OLA have come up with an electric moped. The firm is ready for pilot production and test marketing. This will cost Rs. 20 million and take six months. Managemnet believes that there is 70% chance that the pilot production and test marketing will be successful. In case of success, OLA can build a plant costing Rs. 150 million. The plant will generate an annual cash inflow of Rs. 30 million for 20 years if the demand is high or an annual cash inflow of Rs. 20 million if the demand is low. High demand has a probability of 0.6; low demand has a probability of 0.4. What is the optimal course of action using decision tree analysis?