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P.E.S. College of Engineering, Mandya - 571 401
(An Autonomous Institution affiliated to VTU, Belagavi)
Third Semester, Master of Business Administration (MBA)
Semester End Examination; February / March - 2022
Project Management

Time: 3 hrs   *Max. Marks: 100*

*Note: Answer all **FOUR** full questions from **PART - A** and **PART - B** (Case Study) is compulsory.*

PART - A

1 a.	Discuss the different phases of capital budgeting with a suitable example.	10
b.	Explain how portfolio planning can be done for a multi-business firm using BCG matrix?	10

OR

2 a.	What is market survey? Describe the steps involved in a sample survey for market and demand analysis.	10
b.	Illustrate the components of marketing plan with suitable examples.	10
3 a.	Discuss the various factors to be considered in location planning.	12
b.	Elaborate the various components of cost of production.	8

OR

4 a.	Explain the following with respect to technical analysis of a project. i) Structures and Civil works ii) Environmental Aspects iii) Project Charts and Layouts	12
b.	Discuss the points to be borne in mind while planning working capital requirements and its financing.	8
5 a.	Enumerate and explain the methods used for analyzing risk factors relating to capital expenditure in practice.	10
b.	Kiran Hydraulics Limited is considering an investment proposal involving an outlay of Rs. 4,500,000. The expected cash flows and a certainty equivalent coefficients are :	10

Year	Expected Cash flow	Certainty equivalent co-efficient
1	10,00,000	0.90
2	15,00,000	0.85
3	20,00,000	0.82
4	25,00,000	0.78

The risk-free interest rate is 5 percent. Calculate the net present value of the proposal Interpret the results.

OR

6 a.	Describe the rationale behind social cost benefit analysis. Write a note on UNIDO approach for project appraisal.	10

b. The scientists at spectrum 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. Management believes that there is 70 percent chance that the pilot production and test marketing will be successful. In case of success, Spectrum 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 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? Assume a discount rate of 12 percent.   10

7 a. Write a brief note on any two sources of finance for projects.   8

b. A work project consists of 12 activities labeled A through L. Upon being asked to specify the order in which the jobs had to be done, the manager answered as follows: A, B and C are the first activities of the project and can start simultaneously and immediately; A, and B precedes D and B precedes E, F and H. Activities F and C precedes G while E and H precede I and J. C, D, F and J precede K which, in turn precedes L. Further I, G and L are terminal activities of the project. The completion times of the various activities are listed as follows: 12

Activity	A	B	C	D	E	F	G	H	I	J	K	L
Time (Days)	6	4	10	1	1	3	14	6	9	2	7	5

i) Draw a network diagram corresponding to this project

ii) Obtains the lengths of all the paths and determine critical path

OR

8 a. Describe term loan procedures in detail.   8

b. The following table shows the jobs of a network along with their time estimates.

Job	1-2	1-6	2-3	2-4	3-5	4-5	6-7	5-8	7-8
Optimistic Time (days)	1	2	2	2	7	5	5	3	8
Most likely estimate (days)	7	5	14	5	10	5	8	3	17
Pessimistic Time (days)	13	14	26	8	19	17	29	9	32

12

Draw the project network and find the probability of the project completing in 40 days.

PART - B (Case Study Compulsory)

9. A company is considering an investment proposal to install new milling controls at a cost of Rs. 50,000. The facility has a life expectancy of 5 years and no salvage value. The tax rate is 35%. Assume the firm uses straight line method and the same is allowed for tax purposes. The estimated cash flows before depreciation and tax (CFBT) from the investment proposal as follows:

Year	CFBT (in Rs.)
1	10,000
2	10,692
3	12,769
4	13,462
5	20,385

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Compute the following:

a) Payback period

b) Average Rate of return

c) Net present value at 10% discount rate

d) Profitability Index at 10% discount rate

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