PG – 1015

IV Semester M.B.A. Degree Examination, June/July 2015
(2007-08 Scheme)
MANAGEMENT
F.6 : Project Analysis and Implementation

Time : 3 Hours Max. Marks : 75

SECTION – A

1. Answer **any six** of the following questions. **Each** carries **2** marks. **(2×6=12)**

   a) What is strategic investment ?

   b) What is project life cycle ?

   c) What is feasibility study ?

   d) What is plant capacity ?

   e) Why projects fail ?

   f) What is sensitivity analysis ?

   g) What is project diary ?

   h) What are the sources of positive N.P.V. ?

SECTION – B

Answer **any three** questions. **Each** question carries **eight** marks. **(3×8=24)**

2. Explain the different components of cost of project.

3. Explain the factors influencing the choice of technology.

4. Discuss the importance and problems of venture capital financing.

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5. The Textile Manufacturing Company Ltd. is considering one of two mutually exclusive proposals, Projects M and N, which require cash outlays of Rs. 8,50,000 and Rs. 8,25,000 respectively. The Certainty-Equivalent (C.E.) approach is used in incorporating risk in capital budgeting decisions. The current yield on government bonds is 6% and this is used as the risk free rate. The expected net cash flows and their Certainty Equivalents are as follows :

	Project M		Project N	
Year-ended	**Cash flow (Rs.)**	**C.E.**	**Cash flow (Rs.)**	**C.E.**
1	4,50,000	0.8	4,50,000	0.9
2	5,00,000	0.7	4,50,000	0.8
3	5,00,000	0.5	5,00,000	0.7

Present value factors of Re. 1 discounted at 6% at the end of year 1, 2 and 3 are 0.943, 0.890 and 0.840 respectively.

Required :

i) Which project should be accepted ?

ii) If risk adjusted discount rate method is used, which project would be appraised with a higher rate and why ?

6. X Ltd. has to decide between rental of two types of machine manufacturing the same product. Machine A, an inexpensive economy model, rents for Rs. 1,000 per month, but the variable production cost is Re. 0.25 per unit. Machine B rents for Rs. 3,000 per month but the variable production cost is only Re. 0.10 per unit. Monthly demand varies between 10,000 and 19,000 to the following probabilities :

Demand	10,000	12,000	15,000	17,000	19,000
Probability	0.12	0.17	0.41	0.24	0.06

Make a comparison of the two machines. Which machine X Ltd. should rent ?

If the demand is definitely known to be 10,000 units, would the decision reverse ?

SECTION – C

Answer **any two** of the following questions. **Each** question carries **12** marks. (2×12=24)

7. Discuss the techniques used in evaluating the investment proposals under uncertainty.

8. XY Ltd. wants to install a new machine in the place of an existing old one which has become obsolete. The company made extensive enquiries and from the replies received, short-listed two offers. The two models differ in cost, output and anticipated net revenue. The estimated life of both the machines is five years. There will be only negligible salvage value at the end of the fifth year. Further details are as follows : (Rs. lakhs).

Machine	Cost	Anticipated after-tax cash flow				
		Year 1	Year 2	Year 3	Year 4	Year 5
A	25	–	5	20	14	6
B	40	10	14	16	17	8

The company's cost of capital is 16%. You are required to make an appraisal of the two offers and advise the firm by using the following :

i) Payback Period ii) Net Present Value

iii) Profitability Index iv) Internal Rate of Return

9. A company is considering two mutually exclusive projects X and Y. Project X costs Rs. 30,000 and Project Y Rs. 36,000. You have been given below the net present value probability distribution for each Project :

Project X		Project Y	
NPV Estimate (Rs.)	Probability	NPV Estimate (Rs.)	Probability
3,000	0.1	3,000	0.2
6,000	0.4	6,000	0.3
12,000	0.4	12,000	0.3
15,000	0.1	15,000	0.2

i) Compute the expected net present value of Projects X and Y.

ii) Compute the risk attached to each project i.e., standard deviation of each probability distribution.

iii) Which project do you consider more risky and why ?

iv) Compute the probability index of each project.

SECTION – D

Case study (Compulsory) : **(1×15=15)**

10. A firm has an investment proposal, requiring an outlay of Rs. 80,000. The investment proposal is expected to have two years economic life with no salvage value. In year 1, there is a 0.4 probability that cash inflow after tax will be Rs. 50,000 and 0.6 probability that cash inflow after tax will be Rs. 60,000. The probability assigned to cash inflow after tax for the year 2 are as follows :

The cash inflow year 1	Rs. 50,000		Rs. 60,000	
The cash inflow year 2	Probability		Probability	
	Rs. 24,000	0.2	Rs. 40,000	0.4
	Rs. 32,000	0.3	Rs. 50,000	0.5
	Rs. 44,000	0.5	Rs. 60,000	0.1

The firm uses a 10% discount rate for this type of investment :

Required :

i) Construct a decision tree for the proposed investment project and calculate the expected Net Present Value (NPV).

ii) What Net Present Value will the project yield, if worst outcome is realised ? What is the probability of occurrence of this NPV ?

iii) What will be the best outcome and the probability of that occurrence ?

iv) Will the project be accepted ?