



PG – 962

IV Semester M.B.A. Degree Examination, July 2016  
(2007-08 Scheme)  
MANAGEMENT

F-6 : Project Analysis and Implementation

Time : 3 Hours

Max. Marks : 75

SECTION – A

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

1. a) What is economic analysis ?
- b) What is capital rationing ?
- c) Define portfolio risk.
- d) What are sources of positive N.P.V. ?
- e) What do you mean by consortium lending ?
- f) What is deep discount bond ?
- g) What is project rating index ?
- h) Define venture capital.

SECTION – B

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

2. 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 :

Year-ended	Project M		Project N	
	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 ?

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3. Sony Electronics, has developed a new Camcorder Camera. If the camera is successful, the present value of the pay off (at the time the product is brought to market) is Rs. 200 million. If the camera fails, the present value of the pay off is Rs. 50 million. If the product goes directly to the market, there is a 50% chance of success. Alternatively, Sony can delay the launch by one year and spend Rs. 20 million to test market the Camcorder Camera. Test marketing allows the firm to improve the product and increase the probability of success to 75%. The appropriate discount rate is 15%. Should the firm conduct test marketing ?
4. Probability distribution of projects X and Y which costs Rs. 30,000 and Rs. 36,000 respectively is given below along with their NPV estimates.
- Compute mean NPV and standard deviation of NPV for each project.
  - Which project would you consider if you assume higher risk ?

Project X		Project Y	
NPV	Probability	NPV	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

5. Define project planning. Briefly explain the various categories of projects.
6. Examine the steps in conducting project analysis.

### SECTION - C

Answer any two questions. Each question carries 12 marks.

(2x12=24)

7. Explain the various sources of long term financing available to a project.
8. Nike Shoe Company is considering an investment of Rs. 4,20,000 in a machine that will be depreciated by the straight line method over its seven year economic life. The appropriate discount rate is 13% and the corporate tax rate for the company is 35%.

	Pessimistic	Expected	Optimistic
Unit Sales	23,000	25,000	27,000
Price per unit	Rs. 38	Rs. 40	Rs. 42
Variable cost per unit	Rs. 21	Rs. 20	Rs. 19
Fixed costs per year	Rs. 3,20,000	Rs. 3,00,000	Rs. 2,80,000

- Calculate the NPV of the project in each of the above scenarios.
- If each scenario is equally likely, is the machine a worthwhile investment ?



9. You are the financial analyst of Hittle Company. The director of capital budgeting has asked you to analyse two proposed capital investments, Projects X and Y. Each project has a cost of Rs. 100 million and the cost of capital for each project is 12%. The project's expected net cash flows are as follows :

Expected Net Cash flows		
(Rs. in millions)		
Year	Project X	Project Y
0	(100)	(100)
1	65	35
2	30	35
3	30	35
4	10	35

- Calculate each projects NPV and IRR.
- Which project should be accepted if they are mutually exclusive ?
- How might a change in cost of capital produce a conflict between the NPV and IRR rankings of these projects ?

#### SECTION - D

Case study.

(1×15)

10. The initial investment outlay for a capital investment project consists of Rs. 100 lakh for plant and machinery and Rs. 40 lakh for working capital. Other details are summarised below :

Sales (lakh units per annum for years 1 to 5)	1
Selling price (per unit)	120
Variable cost (per unit)	60
Fixed overheads (excluding depreciation) (lakh per annum for years 1 to 5)	15
Rate of depreciation on plant and machinery (per cent on WDV)	25
Salvage value of plant and machinery (Equal to the WDV at the end of year 5)	



Applicable tax rate (per cent)	40
Time horizon (years)	5
Post-tax cut off rate (per cent)	12

**Required:**

- i) Indicate the financial viability of the project by calculating the net present value.
  - ii) Determine the sensitivity of the project's NPV under each of the following conditions:
    - a) Decrease in selling price by 10 per cent
    - b) Increase in variable cost by 10 per cent
    - c) Increase in variable cost by 5 per cent and increase in selling price by 5 per cent.
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