



IV Semester M.B.A. Degree Examination, June 2009

(2007 Scheme)

MANAGEMENT

F-6 : Project Analysis and Implementation

Time : 3 Hours

Max. Marks : 75

SECTION – A

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

- a) State the importance of capital invests.
- b) What is corporate appraisal ?
- c) What is project rating index ?
- d) What is trend projection method ?
- e) Define internal rate of return.
- f) What is sensitivity analysis ?
- g) What do you mean by loan syndication ?
- h) What is private placement ?

SECTION – B

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

2. Explain the project life cycle phases.
3. Discuss the various components of Project Execution Plan.

P.T.O.



4. A company is contemplating to purchase a machine. Two machines A and B are available each costing Rs. 5,00,000. In comparing the profitability of a machine a discounting rate of 10% is to be used. Cash inflows after tax are expected as follows :

Year	Machine A	Machine B
1	1,50,000	50,000
2	2,00,000	1,50,000
3	2,50,000	2,00,000
4	1,50,000	3,00,000
5	1,00,000	2,00,000

Indicate which machine would be profitable using the following methods of ranking investment proposals :

- a) Pay back period b) Average rate of return
 c) Net present value d) Benefit-cost ratio.
5. A project involves an outlay of Rs. 1,00,000. Its expected cash inflow at the end of year one is Rs. 40,000. Thereafter, it decreases every year by Rs. 2,000. It has an economic life of 6 years. The certainty equivalent factor is $\alpha t = 1 - 0.05t$. Calculate the net present value of the project if the risk free rate of return is 10 percent.
6. Skylark Airways is planning to acquire a light commercial aircraft at an investment of Rs. 50,00,000. The expected cash flow after tax for the next three years is as follows :

Year 1		Year 2		Year 3	
CFAT	Probability	CFAT	Probability	CFAT	Probability
14,00,000	0.1	15,00,000	0.1	18,00,000	0.2
18,00,000	0.2	20,00,000	0.3	25,00,000	0.5
25,00,000	0.4	32,00,000	0.4	35,00,000	0.2
40,00,000	0.3	45,00,000	0.2	48,00,000	0.1

The company wishes to take into consideration all possible risk factors relating to an airline operations. The company wants to know :

- i) The expected NPV of this venture assuming independent probability distribution with 6% risk free of interest
 ii) The possible deviation in the expected value.



SECTION - C

Answer any two of the following questions. Each question carries 12 marks. (2x12=24)

- 7. Discuss the different techniques of project appraisal.
- 8. XYZ Ltd. has the following book value capital structure

	Rs. Crores
Equity capital (in shares of Rs. 10 each fully paid-up at par)	15
11% preference capital (in shares of Rs. 100 each fully paid-up at par)	1
Retained earnings	20
13.5% Debentures (of Rs. 100 each)	10
15% term loans	12.5

The next expected dividend on equity shares is expected to grow at the rate of 7%.

The market price per share is Rs. 40.

Preference stock, redeemable after 10 years, is currently selling at Rs. 75.

Debentures, redeemable after six years are selling at Rs. 80 per debenture.

Income tax rate of the company is 40%, required to calculate :

- a) Weighted average cost of capital based on book weights
- b) WACC based on market value proportions.

9. A company proposes to introduce a new product. The market study information suggests that the company can set a price of Rs. 36, or Rs. 38 or Rs. 40 per unit. The company intends to hire a machinery to manufacture the product at Rs. 4,00,000 per annum but if annual production exceeds 60,000 units additional cost Rs. 1,60,000 per annum will be incurred on the hire of machinery. The variable cost is Rs. 10 or Rs. 12 per unit produced. The following estimate of sales at each possible selling price has been prepared.

Selling Price	Rs. 36		Rs. 38		Rs. 40	
	Units	Probability	Units	Probability	Units	Probability
Pessimistic	70,000	0.3	60,000	0.1	30,000	0.4
Most likely	80,000	0.5	70,000	0.7	60,000	0.5
Optimistic	90,000	0.2	90,000	0.2	70,000	0.1



The probability of unit cost are 0.6 for variable cost of Rs. 10 per unit and 0.4 for variable cost of Rs. 12 per unit.

The company has committed an advertising expenditure of Rs. 80,000 per annum.

You are required to analyse and advise which selling price will be appropriate from the point of view of maximisation of profits.

SECTION – D

Case Study :

15

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

Sales	: One lakh units of output per year for years 1 to 5
Selling price	: Rs. 120 per unit
Variable cost	: Rs. 60 per unit
Fixed overheads (Excluding depreciation)	: Rs. 15 lakhs per year for years 1 to 5
Rate of depreciation on machinery	: 25% on W.D.V. method
Salvage value of plant and machinery	: Equal to W.D.V. at the end of year 5
Applicable tax rate	: 40%
Time horizon	: 5 years
Post tax cut-off rate	: 12%

Required :

- Indicate the financial viability of the project by calculating NPV
- Determine the sensitivity if the project's NPV if the selling price decreases by 5%.