

MBA (FT)

A

Paper F-3110— PROJECT PLANNING ANALYSIS AND MANAGEMENT

Time : 3 hours

Maximum Marks : 70

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt all questions. All questions carry equal marks.

Make suitable assumptions wherever necessary.

Q.1 Answer the following:-

I. Five projects, A, B, C, D and E are available to a company.

	A	B	C	D	E
Initial investment	Rs. 20,000	50,000	75,000	1,00,000	1,50,000
Annual cash inflow	Rs. 6,000	8,000	15,000	15,000	25,000
Life	5 years	10 years	8 years	12 years	7 years
Salvage value	Rs. 5,000			15,000	50,000

Project B is a prerequisite for project E and projects C and D are mutually exclusive. Otherwise the projects are independent. If the cost of capital for the firm is 10 per cent, which projects should be chosen at the following budget levels: Rs. 2,00,000 and Rs. 2,50,000. Assume that the decision criterion is the net present value. Use the feasible combinations approach.

[6]

II. XY Company's capital structure in terms of market value is:

Debt Rs. 30 million

Equity Rs. 60 million

The company plans to maintain this market-value capital structure. The company has a plan to invest Rs. 15 million next year. This will be financed as follows:

Retained earnings Rs. 5 million

Additional equity Rs. 5 million

Debt Rs. 5 million

The company's equity stock presently sells for Rs. 30 per share. The next dividend expected is Rs. 3.00. The expected rate of dividend growth is 5 per cent. Additional equity can be issued at Rs. 25 per share (net). The interest rate applicable to additional debt would be as follows:

First Rs. 2.5 million 14 per cent

Next Rs. 2.5 million 15 per cent

The tax rate for the firm is 60 per cent.

Required:

Turn over

- a. At what amounts of new capital will there be breaks in the marginal cost of capital schedule?
 - b. What will be the marginal cost of capital in the interval between each of the breaks?
- [8]

Q.2 Answer the following:

I. A project has begun on April 1, 2010 and was expected to be completed by December 31, 2010. The project is being reviewed on September 30, 2010 when the following information has been developed:

- Budgeted cost for work scheduled : Rs. 60,00,000
- Budgeted cost for work performed : Rs. 55,00,000
- Actual cost of work performed : Rs. 58,00,000
- Budgeted cost for total work : Rs. 1,00,00,000
- Additional cost for completion : Rs. 50,00,000

Determine the following: (i) cost variance, (ii) schedule variance in cost terms, (iii) cost performance index, (iv) schedule performance index, and (v) estimated cost performance index. [5]

II. Explain and illustrate abandonment analysis. [5]

III. Discuss how a project rating index (PRI) may be developed. [4]

Q.3 Discuss the concept of social cost benefit analysis with special reference to:

- a. Need for SCBA
- b. Indicators of social desirability of a project
- c. Steps in working out social costs and benefits [14]

Q.4 Attempt the following:

I. Discuss the inter linkage between capital expenditure decisions and inflation. Give suitable illustrations. [7]

II. Discuss the different methods of incorporating risk in the investment decision making process while selecting projects. [7]

Q.5 XY Ltd. is a major manufacturer of light commercial vehicles. It has a very strong R&D center, which has developed very successful models in the last fifteen years. However, two models developed by it in the last few years have not done well and were prematurely withdrawn from the market.

The engineers at its R&D centre have recently developed a prototype for a new light commercial vehicle that would have a capacity of four tons.

After a lengthy discussion, board of directors of XY Ltd. decided to carefully evaluate the financial worthwhileness of manufacturing this model, which they have labeled Meta 4.

You have been recently hired as the executive assistant to Vijay Mathur, Managing Director of XY Ltd. Vijay Mathur has entrusted you with the task of evaluating the project.

Meta 4 would be produced in the existing factory, which has enough space for one more product. Meta 4 will require plant and machinery that will cost Rs. 720 million. You can assume that the outlay on plant and machinery will be incurred over a period of one year.

For the sake of simplicity assume that 50 per cent will be incurred right in the beginning and the balance 50 per cent will be incurred after 1 year. The plant will commence operation after one year.

Meta 4 project will require Rs. 180 million towards working capital. You can assume that working capital investment will occur after 1 year.

The proposed scheme of financing is as follows: Rs. 360 million of equity, Rs. 360 million of term loan and Rs. 180 million of working capital advance. Equity will come right in the beginning by way of retained earnings. Term loan and working capital advance will be raised at the end of year 1.

The term loan is repayable in 8 equal semi-annual instalments of Rs. 45 million each. The first instalment will be due after 18 months of raising the term loan. The interest rate on the term loan will be 14 per cent.

The level of working capital advance will remain at Rs. 180 million till it is paid back or retired at the end of 5 years, after the project commences, which is the expected life of the project. Working capital advance will carry an interest rate of 12 per cent.

Meta 4 project is expected to generate revenue of Rs. 1350 million per year. The operating costs (excluding depreciation and taxes) are expected to be Rs. 945 million per year.

For tax purposes, the depreciation rate on fixed assets will be 25 per cent as per the written down value method. Assume that there is no other tax benefit.

The net salvage value of plant and machinery is expected to be Rs. 180 million at the end of the project life. Recovery of working capital will be at book value.

The income tax rate is expected to be 30 per cent.

Vijay Mathur wants you to estimate the cash flows from the project.

[14]