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12MBAFM425

Fourth Semester MBA Degree Examination, Dec.2015/Jan.2016
Project Appraisal Planning and Control

Time: 3 hrs. Max. Marks: 100

Note: 1. *Answer any THREE questions from Q.No. 1 to Q.No. 6.*
2. *Question No. 7 and 8 are compulsory.*

1 a. What key issues are examined while making a major investment decision? **(03 Marks)**
b. Describe the aspects covered in market planning. **(07 Marks)**
c. Describe in detail the phases of capital budgeting process. **(10 Marks)**

2 a. What a firm can do to stimulate the flow of project ideas? **(03 Marks)**
b. Explain the tools of portfolio planning : BCG matrix and General Electric's stop light matrix. **(07 Marks)**
c. Explain the various aspects considered in technical analysis of a project. **(10 Marks)**

3 a. What are the principles which should be followed while estimating the cash flows of a project? **(03 Marks)**
b. A limited company is considering the purchase of a new machine, which will replace some mannual operations. There are two alternatives X and Y. From the following information prepare a profitability statement and work out the payback period for each. **(07 Marks)**

	Model X	Model Y
Cost of the machine	1,50,000	2,50,000
Estimated life	5 yrs	6 yrs
Cost of Indirect materials	6,000	8,000
Estimated savings in scrap	10,000	15,000
Additional cost of maintenance	19,000	27,000
Estimated savings in direct wages :		
Employees not required	15	20
Wages per employees p.a	6,000	6,000

Tax rate is 50%. Suggest which machine is preferred.

c. The Balance sheet of XYZ Ltd at the end of 31^{st} March 2015 is as follows :

Liabilities	Amount (in lakhs)	Assets	Amount (in lakhs)
Share capital	100	Fixed assets	180
Reserve & Surplus	20	Investment	-
Secured loan	80	Current Assets :	
Unsecured loan	50	Cash 20	
Current Liabilities	90	Receivables 80	
Provisions	20	Inventories 80	180
Total	360	Total	360

The projected income statement and the distribution of earnings for the year 2015 – 16 is as follows :

	(₹ in lakhs)		(₹ in lakhs)
Sales	400	Profit before tax	60
Cost of goods sold	300	Tax	30
Depreciation	20	Profit after Tax	30
Profit before Interest & tax	80	Dividend	10
Interest	20	Retained earnings	20

During the year 2015 – 16, the firm plans to raise a secured term loan of ₹ 20 lakhs, repay the previous term loan to the extent of ₹ 5 lakhs and increases unsecured loan by ₹ 10 lakhs. Current liabilities and provisions are expected to remain unchanged. Further the firm plans to acquire fixed assets worth ₹ 30 lakhs and increases its inventories by ₹ 10 lakhs. Receivables are expected to increase by ₹ 15 lakhs. The firm plans to pay ₹ 10 lakhs by way of equity dividend. Given the above information prepare : i) Projected Cash Flow Statement ii) Projected Balance sheet. **(10 Marks)**

4 a. What are the three elements of cash flow stream of a project? **(03 Marks)**

b. Mr. Nihal is considering an investment proposal of ₹ 20,000. The expected return during the life of the investment are as under. **(07 Marks)**

Year I

Event	Cash in flow	Probability
I	8,000	0.3
II	12,000	0.5
III	10,000	0.2

Year II Cash Inflow in year I are :

	8000		12000		10000	
	Cash Inflow	Probability	Cash Inflow	Probability	Cash Inflow	Probability
i)	15,000	0.2	20,000	.1	25,000	.2
ii)	20,000	0.6	30,000	.8	40,000	.5
iii)	25,000	0.2	40,000	.1	60,000	.3

Using 10% as cost of capital advise about acceptability of the proposal using decision tree analysis.

c. Diversified Limited is evaluating its granite division for which it uses a debt equity ratio of 1.5 : 1. The pretax cost of debt is 15% and tax rate is 30%. The risk free rate is 12% and the expected return on market portfolio is 16%. There are three firms wholly engaged in the same line of business. Their tax rate is 40%. What should be the required rate of return on entire project? Equity betas and debt equity ratio of A, B, C are **(10 Marks)**

	Equity Beta	D/E ratio
A	1.20	2.1
B	1.10	1.6
C	1.05	1.3

5 a. What conditions should the capital budget satisfy in order to be meaningful and viable? **(03 Marks)**

b. Consider the following nine projects :

Project	Net Present Value	Cash Outflow Year 1	Cash outflow Year 2
1	44	50	48
2	30	40	22
3	20	10	40
4	25	36	5
5	35	25	60
6	24	43	15
7	42	40	0
8	28	33	14
9	60	75	48

The budget constraints for the two years are 150 and 180 respectively. Following project interdependencies obtain :

i) Project 1 and 2 are mutually exclusive.

ii) Out of the set of projects 4, 5 and 6 at least two must be accepted.

iii) Project 9 cannot be accepted unless projects 4 and 6 are accepted.

iv) Project 7 can be delayed by one year. Such a delay would not change the cash outflow but reduces NPV to 35.

v) Projects 8 and 9 are complementary. If the two are accepted together the total cash outflow will be less by 8%, whereas NPV will be more by 10%.

Develop the integer linear programming formulation of the above problem. **(07 Marks)**

c. What are the principal discrepancies that need to be considered while undertaking SCBA? **(10 Marks)**

6 a. What are the key features of term loan? **(03 Marks)**

b. Discuss the pre – requisites for successful project implementation. **(07 Marks)**

c. Find out the optimal project duration, considering an estimated indirect cost of ₹ 2000 per week. **(10 Marks)**

Activity	Time in weeks		Cost	
	Normal	Crash	Normal	Crash
1 – 2	8	4	3000	6000
1 – 3	5	3	4000	8000
2 – 4	9	6	4000	5500
3 – 5	7	5	2000	3200
2 – 5	5	1	8000	12,000
4 – 6	3	2 ½	10,000	11,200
5 – 6	6	2	4000	6800
6 – 7	10	7	6000	8700
5 – 7	9	5	4200	9000
			45,200	70,400

7 a. ABC Ltd is planning to invest in a project. The manager has used the accounting information (PAT) from the projected financial statement and calculated NPV and decided to go ahead with the investment. But the managing director is not convinced about the decision which other tools would the manager use? Why? **(05 Marks)**

b. Alpha Limited is considering two machines. Machine A, a standard model costs Rs 75,000 and lasts for 5 years. Its annual operating cost will be Rs 12,000. Machine B an economy model costs Rs 50,000 and lasts for 3 years. Its annual operating cost will be Rs 20,000 which machine should Alpha Limited choose and why? Assuming a discount rate of 12%. **(05 Marks)**

c. How do you describe capital budgeting to someone who is intelligent but knows nothing about the time value of money or the concept of a required rate of return? **(05 Marks)**

d. XYZ Ltd is planning to invest in a project which cost ₹ 10 crores. The firm is having ₹ 10 lakhs in the form of Retained earnings. What financing option do you suggest? **(05 Marks)**

8 **CASE STUDY** :

Mulakkal Enterprises is considering a capital project about which the following information is available.

a. The investment outlay of the project will be ₹ 100 million. This consist of ₹ 80 million on Plant & Machinery and ₹ 20 million on net working capital. The entire outlay will be incurred at the beginning of the project.

b. The project will be financed with ₹ 45 million of equity capital, ₹ 5 million of preference capital, ₹ 50 million of debt capital. The preference capital will carry a dividend rate of 15% and debt capital will carry an interest rate of 12%.

c. The life of the project is expected to be 5 years. At the end of 5 years fixed asset will fetch a net salvage value of ₹ 30 million whereas networking capital will be liquidated at book value.

d. The project is expected to generate a revenue of ₹ 120 million per year and cost ₹ 80 million per year other than depreciation interest and tax.

e. The effective tax rate is 30%.

f. Plant and machinery will be depreciated at the rate of 15% per year as per written Down Value Method.

Prepare the project cash flow. **(20 Marks)**

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