ME - Civil - Sem - II

QP Code : 5267 CBGS

PEFM

25/5/15

80 Marks **3 Hours**

Note: **1. Attempt any 4 Questions** **2. All questions carry equal (20) marks**
3. Figures to the right indicate marks **4. Attempt sub questions in order**
5. Assume any data, if required, and state them clearly

1. a) With an example, explain how the various tender conditions in a contract affect the construction project cash inflows and outflows and hence the investment decision on whether to bid for a project or not. [10]
   b) Define any 5 financial ratios and with practical examples, explain their utility in financial management. [10]

2. a) Compare Ordinary Capital and Loan stocks on the following points in detail. [12]
   i) Issue costs.
   ii) Servicing costs.
   iii) Obligation to pay interest.
   iv) Obligation to redeem capital / loan
   v) Tax deductibility.
   vi) Effect on control and on freedom of action.
   b) Explain the methodology adopted for the capital budgeting under risk. Elaborate with an example. [8]

3. a) Explain the various methods by which the large investments were raised on the Konkan railway project. Discuss the problems faced and the solutions envisaged. In your opinion was the project a case of financial / economic success or failure? Justify. [12]
   b) What are uses of the balance sheet? Explain. [8]
   Prepare a balance sheet for a company based on the following data
   i) Current liabilities Rs 10,00,000/-
   ii) Loans and advances Rs 20,00,000/-
   iii) Fixed Assets Rs 40,00,000/-
   iv) Investments Rs 60,00,000/-
   v) Current Assets Rs 15,00,000/-
   vi) Reserves and Surplus Rs 1,25,00,000/-

4. a) Your company is considering an investment of Rs. 2 lakhs capital outlay over a period of 5 years. The annual income before depreciation is as follows. [12]

Year	Income (Rs)
1	1,10,000
2	1,00,000
3	80,000
4	85,000
5	60,000

After 5 years, the scrap value expected is Rs. 25,000/- . Depreciation is to be considered at 20% per year on a straight line basis for first 3 years and the rest for 2 years. Income Tax chargable for the firm is 25% on the total profit. Determine
   i) Pay back period.
   ii) Average Rate of Return on initial investment
   iii) Average Rate of Return on average investment.
   b) Explain Basic Accounting Principles [8]

[TURNOVER

5. a) The expected cash flows from 2 alternatives are as follows :- [10]

Year	Project A Rs in lakhs	Project B Rs in lakhs
0	(200)	(260)
1	(120)	120
2	(60)	40
3	(25)	50
4	(260)	60
5	460	80
6	600	100

For each alternative, determine

i) Pay - back period.

ii) NPV at 12% interest rate.

iii) IRR for Project 'A' (Approximate value)

Which investment alternative you would prefer and why? Justify.

b) Discuss basic objectives of financial management and role of finance manager on mega construction projects. [5]

c) Discuss role of "lenders engineer" in various phases of a mega construction project [5]

6. (a) A contractor has to take a decision whether to bid for a construction project or not. The decision criteria is based on NPV. The project worth is Rs.100 crores to be completed in 4 years. Based on the tender conditions and the company policy, following information is generated:

(i) Mobilization Advance: 10% of project worth. Mobilization Advance will be deducted in 3 equal instalments of 4%, 3% and 3% respectively, starting from the first year

(ii) C.E Advance: 5% of project worth. It will be deducted in 2 equal instalments starting from the 2nd year

(iii) Material cost component of the project is 40%. Secured advance against materials brought to site is 50% of the material cost. Secured Advance is accounted in proportion to the yearly bill payable to the contractor. Secured Advance will be deducted in 3 equal instalments from the running bills starting from the 2nd year

(iv) Contractor has to pay 3% as Performance Security in the beginning and 3% Retention amount, which is deductable from each running bill. Performance Security will be released after the end of the project during the fifth year and retention amount will be released in the 6th year at the end of defects liability period.

(v) the yearly bills payable to the contractor including the retention amount are as follows:

Year	Amount (crore Rs.)
1	160
2	260
3	380
4	200

(vi) Net profit from the above project before deduction of taxes is 11%. Profit is accounted yearly in proportion to the bill amount

(vii) income tax is charge at 25%
(viii) working capital required to be raised is estimated at 15%. Working capital may be divided in the proportion of yearly bill. Interest on the working capital is 12%. Repayment of working capital is to be considered in the 5th and 6th year together with its simple interest
(ix) Consider the cost of capital as 15%
(x) Estimated cost of the defects arising during d.l.p is 1.5% of the project worth

Prepare a cash flow statement for the contractor over the 6 year period. Represent the total yearly inflows and outflows w.r.t time graphically and identify whether additional funds may become necessary. Based on NPV, suggest whether the investment in the above project is feasible or not. **[14]**

b) Explain CIDC-ICRA grading system with relevant examples from the construction sector. **[6]**