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Fourth Semester B.E./B.Tech. Degree Examination, June/July 2024

Financial Management

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.

2. M : Marks , L: Bloom's level , C: Course outcomes.

3. Use of Interest Factor Tables is permitted.

| Module – 1 | | | M | L | C |
|------------|----|---|----|----|-----|
| Q.1 | a. | Explain the two Approaches , Profit/EPS Maximization Decision Criterion and Wealth Maximization Decision Criterion. Describe the basic reasons why profit/EPS maximization fails to be consistent with wealth maximization as the financial objectives of a business firm. | 10 | L2 | CO1 |
| | b. | Define Finance , Financial Services and Financial Managers. Explain why Financial Management is essential for any Organization. | 4 | L2 | CO1 |
| | c. | Explain how Financial Management involves making managerial decisions about asset allocation , capital structure and profit distribution. | 6 | L2 | CO1 |
| OR | | | | | |
| Q.2 | a. | What does Financial Management entail? Explain the three primary decision involved in Financial functions. | 10 | L2 | CO1 |
| | b. | Explain the significance of economic value added and stakeholder focus in relation to maximizing value of share price. | 4 | L2 | CO1 |
| | c. | Briefly explain the three key activities of the Financial Manager. | 6 | L2 | CO1 |
| Module – 2 | | | | | |
| Q.3 | a. | Calculate the present value of Rs. 60000 receivable after 8 years if the rate of discount is i) 10 percent ii) 12 percent iii) 15 percent. | 6 | L3 | CO2 |
| | b. | Mr. Sanjay plans to send his son for higher studies abroad after 10 years. He expects the cost of these studies to be Rs 10,00,000. Calculate how much he would save annually to have a sum of Rs 10,00,000 at the end of 10 years, if the interest rate is 12 percent. | 4 | L3 | CO2 |
| | c. | An investor deposits Rs 20000 in a Bank Account for 5 years at 8% interest. Calculate the amount which he will have in his account of interest is compounded i) Annually ii) Semi – annually iii) Quarterly iv) Continuously. | 8 | L3 | CO2 |
| | d. | If the interest rate is 8 percent , calculate the doubling periods as per the rule of 72 and the rule of 69 respectively. | 2 | L3 | CO2 |
| OR | | | | | |
| Q.4 | a. | You want to take a world tour which costs Rs 1000000, the cost is expected to remain unchanged in nominal term. You are willing to save annually Rs 80000 to fulfill your desire. Calculate how long you will have to wait if your savings earn a return of 12 percent per annum. | 6 | L3 | CO2 |

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|--|----|---|---|----|-----|
| | b. | Suresh deposits Rs 5,00,000 in a bank account which pays 10 percent interest. Calculate how much he can withdraw annually for a period of 15 years. | 4 | L3 | CO2 |
| | c. | As a winner of a competition, you can choose one of the following prizes : i) 5,00,000 Rs now ii) Rs 10,00,000 at the end of 6 years iii) Rs 60000 a year forever iv) Rs 1,00,000 per year for 10 years. If the interest rate is 10 percent , determine which prize has the highest value. | 8 | L3 | CO2 |
| | d. | Sanketh promises to give you Rs 5000 after 10 years in exchange for Rs 1000 today. Calculate the interest rate implicit in this offer. | 2 | L3 | CO2 |

Module – 3

Module – 3

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| Q.5 | a. | <p>A Company is considering which of two mutually exclusive project it should undertake. The company anticipates a cost of capital of 10% and net after tax cash flows of the project are as follows :</p> <table><tr><td>Year</td><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr><tr><td>Project X (Rs'000)</td><td>210</td><td>40</td><td>80</td><td>90</td><td>75</td><td>25</td></tr><tr><td>Project Y (Rs'000)</td><td>210</td><td>222</td><td>10</td><td>10</td><td>6</td><td>6</td></tr></table> <p>Calculate the NPV and PI of each project. Infer with reasons which project you would recommend.</p> | Year | 0 | 1 | 2 | 3 | 4 | 5 | Project X (Rs'000) | 210 | 40 | 80 | 90 | 75 | 25 | Project Y (Rs'000) | 210 | 222 | 10 | 10 | 6 | 6 | 6 | L3 | CO3 |
| Year | 0 | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | | | | | | | | | | |
| Project X (Rs'000) | 210 | 40 | 80 | 90 | 75 | 25 | | | | | | | | | | | | | | | | | | | | |
| Project Y (Rs'000) | 210 | 222 | 10 | 10 | 6 | 6 | | | | | | | | | | | | | | | | | | | | |
| | b. | <p>From the information given below, calculate the payback period. Depreciation has been calculated under Straight line method. Initial Outlay : Rs 80,000 ; Estimated life : 5 years. Profit after tax is given below for year end :</p> <table><tr><td>Year 1</td><td>Year 2</td><td>Year 3</td><td>Year 4</td><td>Year 5</td></tr><tr><td>Rs.6000</td><td>Rs.14000</td><td>Rs.4000</td><td>Rs.6000</td><td>Rs.10000</td></tr></table> | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Rs.6000 | Rs.14000 | Rs.4000 | Rs.6000 | Rs.10000 | 6 | L3 | CO3 | | | | | | | | | | | |
| Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | | | | | | | | | | | | | | | | | | | | | | |
| Rs.6000 | Rs.14000 | Rs.4000 | Rs.6000 | Rs.10000 | | | | | | | | | | | | | | | | | | | | | | |
| | c. | <p>Discuss the nature of capital budgeting decisions and explain their significance for a business enterprise.</p> | 8 | L2 | CO3 | | | | | | | | | | | | | | | | | | | | | |

OR

| Q.6 | a. | <p>A company is considering an investment proposal to install new milling controls at a cost of Rs 50,000. The facility has a life expectancy of 5 years and no salvage value. The tax rate is 35 percent. Assume the firm uses straight line depreciation and the same is allowed for tax purposes. The estimated cash flows before depreciation and tax (CFBT) from the investment proposal are as follows :</p> <table border="1"> <tr> <th>Year</th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th></tr> <tr> <td>CFBT (Rs)</td><td>10000</td><td>10692</td><td>12769</td><td>13462</td><td>20385</td></tr> </table> <p>Calculate the following : i) Average rate of return ii) Internal rate of return iii) Net present value at 10 percent discount rate.</p> | Year | 1 | 2 | 3 | 4 | 5 | CFBT (Rs) | 10000 | 10692 | 12769 | 13462 | 20385 | 6 | L3 | CO3 |
|-----------|-------|--|-------|-------|-------|---|---|---|-----------|-------|-------|-------|-------|-------|---|----|-----|
| Year | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | | |
| CFBT (Rs) | 10000 | 10692 | 12769 | 13462 | 20385 | | | | | | | | | | | | |
| | b. | <p>Tata Co. is considering replacement of existing machine which is obsolete and unable to meet rapidly rising demand for its product. The company is faced with 2 alternatives : i) To buy machine M1 which is similar to existing machine or ii) To go for machine M2 which is more expensive and has much greater capacity. The cash flows at the present level of operations under the 2 alternatives are as follows :</p> | 6 | L3 | CO3 | | | | | | | | | | | | |

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|------------|--------|--|------|----|-----|----|---|---|---|------------|--------|---|---|----|----|----|------------|--------|----|----|----|----|----|--|--|--|
| | | Cash flows (in lakh of rupees) at the end of year: <table><tr><td>Year</td><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr><tr><td>Machine M1</td><td>(-) 25</td><td>-</td><td>5</td><td>20</td><td>14</td><td>14</td></tr><tr><td>Machine M2</td><td>(-) 40</td><td>10</td><td>14</td><td>16</td><td>17</td><td>15</td></tr></table> <p>The company's cost of capital is 10%. The Finance Manager tries to evaluate machines by calculating the following : i) Net present value ii) Profitability index iii) Payback period. At the end of this calculation, however the Finance Manager is unable to make up his mind as to which machine to recommend. You are required to make these calculations and in the light thereof to advise Finance Manager about the proposed investment.</p> | Year | 0 | 1 | 2 | 3 | 4 | 5 | Machine M1 | (-) 25 | - | 5 | 20 | 14 | 14 | Machine M2 | (-) 40 | 10 | 14 | 16 | 17 | 15 | | | |
| Year | 0 | 1 | 2 | 3 | 4 | 5 | | | | | | | | | | | | | | | | | | | | |
| Machine M1 | (-) 25 | - | 5 | 20 | 14 | 14 | | | | | | | | | | | | | | | | | | | | |
| Machine M2 | (-) 40 | 10 | 14 | 16 | 17 | 15 | | | | | | | | | | | | | | | | | | | | |
| | c. | Explain the following techniques of capital budgeting with their respective merits and demerits : i) Payback method ii) Net present value iii) Accounting rate of return iv) Internal rate of return. | 8 | L2 | CO3 | | | | | | | | | | | | | | | | | | | | | |
| Module – 4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q.7 | a. | Discuss the following bases for determining the proportions (or weights) in the WACC calculations : Book values , Target capital structure and Market values. Also explain the procedure for determining the weighted marginal cost of capital. | 10 | L2 | CO4 | | | | | | | | | | | | | | | | | | | | | |
| | b. | i) Abacus limited issued 15 year , 14 percent bonds five years ago. The bond which has a face value of Rs 100 is currently selling for Rs 108. Calculate the pre – tax and the after – tax cost of debt. Assume a 35 percent tax rate. ii) Omega Enterprises issued 10 year, 9 percent preference shares four years ago. The preference share which has a face value of Rs 100 is currently selling for Rs 92. Calculate the cost of preference shares. | 10 | L3 | CO4 | | | | | | | | | | | | | | | | | | | | | |
| OR | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q.8 | a. | Explain the factors affecting the weighted average cost of capital. Discuss on the common misconceptions surrounding cost of capital in practice and measures to dispel them. | 10 | L2 | CO4 | | | | | | | | | | | | | | | | | | | | | |
| | b. | i) Suman Corporation manufactures speciality chemicals. Its debt – equity ratio is 0.8. Its WACC is 15 percent and its tax rate is 30 percent. If Suman's cost of equity is 20 percent , calculate its pre – tax cost of debt. If Suman can issue debt of an interest rate of 13 percent, calculate its cost of equity. ii) Rao Corporation has a target capital structure of 60 percent equity and 40 percent debt. Its cost of equity is 18 percent and its pre – tax cost of debt is 13 percent. If the relevant tax rate is 35 percent, calculate the Rao Corporation's WACC. | 10 | L3 | CO4 | | | | | | | | | | | | | | | | | | | | | |
| Module – 5 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q.9 | a. | Describe Working Capital Management and explain the key concepts of working capital. Discuss the factors that determine working capital requirement. | 8 | L2 | CO5 | | | | | | | | | | | | | | | | | | | | | |
| | b. | Outline the main characteristics of debentures. Also discuss the benefits and drawbacks of preference capital. | 6 | L2 | CO5 | | | | | | | | | | | | | | | | | | | | | |

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| | c. | Explain the factors suppliers consider when granting trade credit. Also discuss the various sources of finance that support current assets. | 6 | L2 | CO5 |
| OR | | | | | |
| Q.10 | a. | Explain the need for working capital. Differentiate between permanent working capital and fluctuating working capital. | 8 | L2 | CO5 |
| | b. | Outline the important features of term loans in India. Also discuss the advantages and disadvantages of equity capital. | 6 | L2 | CO5 |
| | c. | Discuss the factors a bank considers when reviewing an application for a working capital advance. Also explain the concept of accruals. | 6 | L2 | CO5 |

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