# Eastern University, Sri Lanka Faculty of Commerce \& Management 

Final Year First Semester Examination in BBA/ BC
(Proper/Repeat)


## MTT 4144 - Financial Management

## Answer all Questions

Time: Three Hours

Calculator is permitted
Q1. a) You are thinking of buying TOPO's a preference share of Rs. 100 par value that will pay a dividend of 12 percent perpetually.
i. What price should you pay for the preference share if you are
expecting a return of 10 percent?
(03 Marks)
ii. Suppose that TOPO can buy back the share at a price of Rs. 110 in
seven years. What maximum price should you pay for the preference share?
(03 Marks)
b) A prospective investor is evaluating the share of Ashoka Automobiles Company. He is considering three scenarios. Under first scenario, the company will maintain to pay its current dividend per share without any increase or decrease. Another possibility is that the dividend will grow at an annual (compound) rate of 6 percent in perpetuity. Yet another scenario is that the dividend will grow at a high rate of 12 percent for year for the first three years; a medium rate of 7 percent for the next three years and thereafter, at a constant rate of 4 percent perpetually. The last year's dividend per share is Rs. 3 and the current market price of the share is Rs. 80. If the investor's required rate of return is 10 percent, calculate the value of the share under each of the assumptions. Should the share be purchased?
(09 Marks)
c) Illustrate with the help of an example the linkage between share price and earnings. What is the importance of the price-earning $(\mathrm{P} / \mathrm{E})$ ratio?

Q2. a) The general manger of the engineering division of Zias Engineering Company is considering the replacement of a six-year old equipment. The
company has to incur excessive maintenance cost of the equipment. The equipment has a zero written down value. It can be modernized at a cost of Rs 120,000 enhancing its economic life to 5 years. The equipment could be sold for Rs 20,000 after 5 years. The modernization of the equipment would help in material handling and in reducing labour and maintenance and remain costs. The company has yet another alternative. It can buy a new machine at a cost of Rs 300,000 with an economic life of 5 years with a terminal value of Rs 60,000 . The new machine is expected to be more efficient in reducing costs of material handling, labour and maintenance and repairs etc. The annual costs are as follows:

|  | Existing <br> Equipment | Modernization | New Equipment |
| :---: | ---: | ---: | ---: |
| Wages and salaries | 40,000 | 30,700 | 11,800 |
| Supervision | 20,000 | 9,500 | 7,000 |
| Maintenance | 28,000 | 8,000 | 2,500 |
| Power | 20,000 | 18,000 | 15,000 |
| Total | 108,000 | 66,200 | 36,300 |

The company has a tax rate of 50 percent and a required rate of return of 10 percent. Assume straight-line depreciation for tax purposes, and tax on the sale of equipment at the corporate tax rate. Depreciation is calculated net of the expected salvage value. Should the company modernize its equipment or buy new equipment? Make your assumptions explicit.
(12 Marks)
b) Anila Garments Ltd. is considering a new investment proposal of Rs 500,000 . The project will provide before-tax cash flows of Rs 300,000 for 5 years. It would be financed by a 5 -year loan with the following repayment schedule:

| Total Payment | Interest at $15 \%$ | Principal | Balance |
| :--- | :--- | :--- | :--- |
| 149,165 | 75,000 | 74,165 | 425,835 |
| 149,165 | 63,875 | 85,290 | 340,545 |
| 149,165 | 51,081 | 98,083 | 242,462 |
| 149,165 | 36,369 | 112,796 | 129,666 |
| 149,165 | 19,450 | 129,715 | $(49)^{*}$ |

## *Rounding off error

The income tax rate is 50 per cent. Assume straight-line depreciation for tax
must be sold'? Assume that retained earnings available for next year's investment are 50 per cent of 2007 earnings.
(04 Marks)
d) What is the marginal cost of capital (cost of funds raised in excess of the amount calculated in part (c) if the firm can sell new ordinary shares at Rs. 20 a share? The cost of debt and of preference capital is constant.
(04 Marks)
(Total 20 Marks)
Q4. a) Briefly explain the factors that determine the working capital of a firm?
(04 Marks)
b) A proforma cost sheet of a company provides the following particulars:

|  | Amount per unit <br> Rs |
| :--- | :---: |
| Raw material | 80 |
| Direct labour | 30 |
| Overheads | 60 |
| Total cost | 170 |
| Profit | 30 |
| Selling price | 200 |

The following further particulars are available:
a) Raw material in stock, on an average one month; materials in process, on average half a month; finished goods in stock, on an average one month
b) Credit allowed by suppliers is one month; credit allowed to debtors is two months; lag in payment of wages is one and a half weeks; lag in payment of overhead expenses is one month; one-fourth of the output is sold against cash; cash in hand and at bank is expected to be Rs 25,000

You are required to prepare a statement showing working capital needed to finance a level of activity of 104,000 units of production. You may assume that production is carried on evenly throughout the year, and wages and overheads accrue similarly.
c) Illustrate the meaning of "Profitability-solvency tangle in the current assetse holding"
(Totaizo Marks)
 paying its current debt? Explain your answer with example.
b) Assume that a firm has owner's equity of Rs. 100,000 . The ratios for the firm are:

| Current debt to total debt | 0.40 |
| :--- | :--- |
| Total debt to owners' equity | 0.60 |
| Fixed assets to owners' equity | 0.60 |
| Total assets turnover | 2 times |
| Inventory turnover | 8 times |

Complete the following balance sheet, given the information above.

| Liabilities | Rs | Assets | Rs |
| :--- | :--- | :--- | :--- |
| Current debt | $\ldots \ldots \ldots \ldots .$. | Cash | $\ldots \ldots \ldots \ldots \ldots$ |
| Long -term debt | $\ldots \ldots \ldots \ldots \ldots$ | Inventory | $\ldots \ldots \ldots \ldots \ldots$ |
| Total debt | $\ldots \ldots \ldots \ldots$ | Total current assets | $\ldots \ldots \ldots \ldots$ |
| Owners' equity | $\ldots \ldots \ldots$ | Fixed assets | $\ldots \ldots \ldots \ldots$ |
| Total capital | $\ldots \ldots \ldots$. | Total assets | $\ldots \ldots \ldots \ldots$ |

c) Describe the role of brokers in stock marketrelating the Colombo Stock Exchange.
(Total 20 Marks)
c) Illustrate the meaning of "Profitability-solvency tangle in the current assets holding"


Q5. a) Is it possible for a firm to have a high current ratio and still find diffrevifies shin Lanka paying its current debt? Explain your answer with example.
( 05 Marks)
b) Assume that a firm has owner's equity of Rs. 100,000 . The ratios for the firm are:

| Current debt to total debt | 0.40 |
| :--- | :---: |
| Total debt to owners' equity | 0.60 |
| Fixed assets to owners' equity | 0.60 |
| Total assets turnover | 2 times |
| Inventory turnover | 8 times |

Complete the following balance sheet, given the information above.

| Liabilities | Rs |  | Assets |
| :--- | :---: | :--- | :---: |
| Current debt | $\ldots \ldots \ldots \ldots \ldots$ | Rs |  |
| Long - term debt | $\ldots \ldots \ldots \ldots \ldots$ | Inventory | $\ldots \ldots \ldots \ldots \ldots \ldots$ |
| Total debt | $\ldots \ldots \ldots \ldots$ | Total current assets | $\ldots \ldots \ldots \ldots$ |
| Owners' equity | $\ldots \ldots \ldots$ | Fixed assets | $\ldots \ldots \ldots \ldots$ |
| Total capital | $\ldots \ldots \ldots$ | Total assets | $\ldots \ldots \ldots \ldots$ |

c) Describe the role of brokers in stock marketrelating the Colombo Stock Exchange.

