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# GUJARAT TECHNOLOGICAL UNIVERSITY <br> MBA - SEMESTER 2 - EXAMINATION - WINTER 2018 

Subject Code: 2820003
Date: 26/12/2018
Subject Name: Financial Management Time:02:30 PM TO 05:30 PM

Total Marks: 70 Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
Q. 1 (a) Answer the following MCQs ..... 06

1 In finance, "working capital" means the same thing as
A. Total Assets.
B. Fixed Assets.
C. Current Assets.
D. Current Assets Minus Current Liabilities.

2 Interest rates and bond prices
A. Move in the same direction.
B. Move in opposite directions
C. Sometimes move in the same direction,

D Have no relationship with sometimes in opposite directions. each other (i.e., they are independent).
3 You can use $\qquad$ to roughly estimate how many years a given sum of money must earn at a given compound annual interest rate in order to double that initial amount .
A. Rule 415
B. The Rule of 72
C. The Rule of 78
D. Rule 144

4 All of the following influence capital budgeting cash flows EXCEPT:
A. Accelerated depreciation.
B. Tax rate changes.
C. Salvage value.
D. Method of project financing used.

5 The term "capital structure" refers to:
A. Long-term debt, preferred stock, and common stock equity.
B. Current assets and current liabilities.
C. Total assets minus liabilities.
D. Shareholders' equity.

6 Walter model assumes that for future financing, a firm will rely only on
A. Debentures
B. Term loans
C. Retained earnings
D. External equity

| Q. 1 (b) Explain the following terms | 04 |
| ---: | :--- | :--- |
| 1. | Annuity Due |
| 2. | Share/stock split |
| 3. | Current yield |
| 4. | Systematic Risk |

Q. 1 (c) If you deposit Rs.3,000 today at 8 percent rate of interest in how many years (roughly) will this amount grow to Rs. 1,92,000 ? Work this problem using the rule of 72-do not use tables
Q. 2 (a) A Pro-forma cost sheet of a company provides the following particulars:

## Particulars <br> Elements of cost:

Raw materials 80
Direct labour 30
Overhead 60
Total cost 170
Selling price 200
The following further particulars are available:
Raw materials in stock, on average, one month; Materials in process (completion stage, 50 per cent), on average, half a month; Finished goods in stock, on average, one month. Credit allowed by suppliers is one month; Credit allowed to debtors is two months; Average time-lag in payment of wages is 1.5 weeks and one month in overhead expenses; one-fourth of the output is sold against cash; cash in hand and at bank is desired to be maintained at Rs 3,65,000.

You are required to prepare a statement showing the working capital needed to finance a level of activity of $1,04,000$ units of production. You may assume that production is carried on evenly throughout the year, and wages and overheads accrue similarly. For calculation purposes, 4 weeks may be taken as equivalent to a month.
Q. 2 (b) The present credit terms of Globus Corporation are $2 / 10$, net 40. It sales are Rs. 650 million, its average collection period is 30 days, its variable costs to sales ratio, V , is 0.75 , and its cost of capital is 10 percent. The proportion of sales on which customers currently take discount, is 0.3 . Globus is considering relaxing its credit terms to $3 / 10$, net 40 . Such a relaxation is expected to increase sales by Rs. 30 million, increase the proportion of discount sales to 0.5 , and reduce the ACP to 20 days. Globus's tax rate is 35 percent.
What will be the effect of liberalizing the cash discount on residual income?

## OR

(b) Discuss the "Bank Finance" as a tool for working capital finance.
Q. 3 (a) The following data is available for Newton Limited:

Earnings per share $=$ Rs. 6.00
Rate of return $\quad=18$ percent
Cost of capital $=15$ percent
a. If Walter's valuation formula holds, what will be the price per share when the dividend payout ratio is 30 percent? 40 percent?
b. If Gordon's basic valuation formula holds, what will be the price per share when the dividend payout is 30 percent, 40 percent?
(b) What is NI and NOI approaches of capital structure? How both are contradicting each other? Discuss with assumptions and graphs.

## OR

Q. 3 (a) Advaith Corporation has a net operating income of Rs. 50 million. Advaith employs Rs. 200 million of debt capital carrying 12 percent interest charge. The equity capitalization rate applicable to Advaith is 14 percent. What is the market value and WACC of Advaith under the net income method? Assume there is no tax.
(b) Explain the nature of the factors which influence the dividend policy of a firm.
Q. 4 (a) National Stores is trying to determine the economic order quantity for certain type of transformers.The firm sells 400 numbers of these transformers annually at a price of Rs. 300 per piece. The purchase price per machine tool to the firm is, however, Rs.230. The cost of carrying a transformer is Rs. 40 per year and the cost of placing an order is Rs. 180.
a. What is the total cost associated with placing one, four, eight, and ten orders per year?
b. What is the economic order quantity?
(b) Your company is considering two projects, M and N. Each of which requires an initial outlay of Rs. 240 million. The expected cash inflows from these projects are:

| Year | Project M | Project N |  |
| :---: | ---: | ---: | :---: |
| 1 | 85 | 100 |  |
| 2 | 120 | 110 |  |
| 3 | 180 | 120 |  |
| 4 | 100 | 90 |  |

If the two projects are Mutually exclusive and the cost of capital is 15 percent, which project should the firm invest in? Use NPV method to take decision.
Q. 4 (a) Calculate (a) the operating leverage, (b) financial leverage and (c) combined leverage from the following data under situations I and II and financial plans, $A$ and $B$.
Installed capacity, 4,000 units
Actual production and sales, 75 per cent of the capacity
Selling price, Rs 30 per unit
Variable cost, Rs 15 per unit

## Fixed cost:

Under situation I, Rs 15,000
Under situation II, 20,000
Capital structure:

| Particulars | Financial plan |  |
| :--- | ---: | ---: |
| Equity | A | B |
| Debt (@20\% cost) | Rs. 10000 | Rs. 15000 |
| Total | Rs. 10000 | Rs. 5000 |
|  | Rs.20000 | Rs. 20000 |

(b) Explain in detail various sources of finance available for long term funding of firm.
Q. 5 Prepare cash budget for January-June from the following information: The estimated sales and expenses are as follows:

| Particulars | Nov. | Dec. | Jan. | Feb. | March | April | May | June |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :---: |
| Sales (Rs) | $2,00,000$ | $2,20,000$ | $1,20,000$ | $1,00,000$ | $1,50,000$ | $2,40,000$ | $2,00,000$ | $2,00,000$ |
| Wages and <br> salaries (Rs) | 30,000 | 30,000 | 24,000 | 24,000 | 24,000 | 30,000 | 27,000 | 27,000 |
| Miscellaneous <br> Expense | 27,000 | 27,000 | 21,000 | 30,000 | 24,000 | 27,000 | 27,000 | 27,000 |

1. 20 per cent of the sales are on cash and balance on credit.
2. The firm has a gross margin of 25 per cent on sales.
3. 50 per cent of the credit sales are collected in the month following the sales, 30 per cent in the second month and 20 per cent in the third month.
4. Material for the sale of each month is purchased one month in advance on a credit for two months.
5. The time-lag in the payment of wages and salaries is one-third of a month and of miscellaneous expenses, one month.
6. Debentures worth Rs 40,000 were sold in January.
7. The firm maintains a minimum cash balance of Rs 40,000 . Funds can be borrowed @ 12 per cent per annum in the multiples of Rs 1,000 , the interest being payable on monthly basis.
8. Cash balance at the end of December is Rs 60,000
Q. 5 Modern Limited has the following book value capital structure:

| Equity capital (25 million shares, Rs.10 par) | Rs. 250 million |
| :--- | :--- |
| Preference capital, 10 percent (800,000 shares, Rs. 100 par) | Rs. 80 million |
| Retained earnings | Rs. 50 million |
| Debentures 14 percent (2,000,000 debentures, Rs. 100 par) | Rs. 200 million |
| Term loans, 14 percent | Rs. 220 million |
|  | Rs. 800 million |

The next expected dividend per share is Rs.3.00. The dividend per share is expected to grow at the rate of 10 percent. The market price per share is Rs. 260 . Preference stock, redeemable after 8 years, is currently selling for Rs. 90 per share. Debentures, redeemable after 5 years, are selling for Rs. 105 per debenture. The tax rate for the company is 34 percent.

Calculate the average cost of capital using
a. Book value proportions, and
b. Market value proportions

