

# CBCS SCHEME

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16MBAFM304

## Third Semester MBA Degree Examination, June/July 2018 Advanced Financial Management

Time: 3 hrs.

Max. Marks:80

Note: 1. Answer any FOUR full questions from Q.No.1 to 7.  
2. Q.No. 8 is compulsory.

- 1 a. Vintex limited has a target ROE of 20%. The debt equity ratio of the firm is 1.2 and its pretax cost of debt is 12%. What ROI should the company plan to earn if its tax rate is 30%. (02 Marks)
- b. Discuss the various sources of financing working capital. (06 Marks)
- c. Vibgyor ltd is considering relaxing its collection efforts. Its sales are ₹ 100 millions, its average collection period (ACP) is 30 days, its variable costs to sales ratio (~) is 0.75, its cost of capital ( $k_1$ ) is 14% and its Bad debt ratio ( $b_0$ ) is 0.04. Vibgyor's tax rate is 30%. The relaxation in collection effort is expected to push sales by ₹ 10 million, increase the average collection period to 40 days and raise the bad debts ratio to 0.05. What will be effect of relaxing the collection efforts on the residual income? (08 Marks)
- 2 a. Discuss briefly the 5 C's of credit. (02 Marks)
- b. A company is considering a selective inventory control using the following data:

Item	Units	Unit Cost (₹)
1	6000	4.00
2	61,200	0.05
3	16,800	2.10
4	3,000	6.00
5	55,800	0.20
6	22,680	0.50
7	26,640	0.65
8	14,760	0.40
9	20,520	0.40
10	90,000	0.10
11	29,940	0.30
12	24,660	0.50

- Assuming ABC analysis, arrange the data. (06 Marks)
- c. (i) Discuss the Baumol's model of cash management.  
(ii) Advani Chemical Ltd estimates its total cash requirement as ₹2 crore next year. The company's opportunity cost of funds is 15% p.a. The company will have to incur ₹150 per transaction when it comes to convert short term securities to cash. Determine the optimum balance using Baumols model. How much will be the total annual cost of the demand for optimum cash balance. (08 Marks)
- 3 a. What is the annual percentage interest cost associated with the following credit terms: (02 Marks)  
(i) 2/20 net 50 (ii) 1/10 net 30
- b. 'Trade credit is spontaneous source of working capital'. Substantiate. Discuss the advantages and disadvantages of trade credit as a source of working capital. (06 Marks)

- c. Given (i) the EBIT of ₹ 200000 (ii) the corporate tax rate of 35% and (iii) the following data, determine the amount of debt that should be used by the firm in its capital structure to maximize the value of the firm.

Debt	k <sub>i</sub> (before tax)	k <sub>e</sub> (%)
Nil	Nil	12.0
1,00,000	10.0	12.0
2,00,000	10.5	12.6
3,00,000	11.0	13.0
4,00,000	12.0	13.6
5,00,000	14.0	15.6
6,00,000	17.0	20.0

(08 Marks)

- 4 a. What is Discriminant analysis? (02 Marks)  
 b. Explain NOI approach towards capital structure decisions. (06 Marks)  
 c. The earnings per share of a company is ₹8 and rate of capitalization applicable is 10%, the company has before it, an option of adopting (i) 50% (ii) 75% (iii) 100% dividend payout ratio. Compute the market price of the company's quoted shares as per Waller's model if it can earn a return of (a) 15% (b) 10% (c) 5% on its retained earnings. (08 Marks)
- 5 a. Define 'Dividend Stability'. What are the three forms of dividend stability? (02 Marks)  
 b. Explain the various factors influencing capital structure decisions. (06 Marks)  
 c. A textile company belongs to a risk class for which the appropriate P/E ratio is 10. It currently has 50,000 outstanding shares selling at ₹ 100 each. The firm is contemplating the declaration of ₹8 dividend at the end of the current financial year which has just started. Given the assumption of MM, answer the following questions.  
 (i) What will the price of share be at the end of the year if dividends are declared or not declared?  
 (ii) Assuming the firm pays the dividend, has a net income of ₹ 500000 and makes new investment of ₹ 10,00,000 during the period, how many new shares must be issued.  
 (iii) What will be the value of the firm if dividends are declared/not declared? (08 Marks)
- 6 a. What is lock box system? (02 Marks)  
 b. G Ltd produces a product which has a monthly demand of 4000 units. The product requires a component X which is purchased at ₹ 20. For every finished product, one unit of component is required. The ordering cost is ₹ 120 per order and the holding cost is 10% p.a. You are required to calculate  
 (i) EOQ  
 (ii) If the minimum lot size to be supplied is 4000 units, what is the extra cost, the company has to incur?  
 (iii) What is the minimum cost, the company has to incur? (06 Marks)  
 c. A construction company has equity capital of ₹ 500000 divided into shares of ₹ 100 each. It wishes to raise another ₹ 300,000 for its expansion. The company has four alternatives  
 Plan A : All common stock.  
 Plan B : 100000 in common stock and 200000 in debt at rate of 10%.  
 Plan C : All debt at 10%.  
 Plan D : 100000 in common stock, 200000 in preference stock of 8%.  
 The EBIT of the company is ₹ 150000 and company falls in 30% tax rate. Determine the EPS in each plan and comment on the same. (08 Marks)

- 7 a. What is financial brake even point? (02 Marks)
- b. The finance manager of a firm is wondering whether credit should be granted to a new customer who is expected to make a repeat purchase. On the basis of credit evaluation, the finance manager feels that the customer will pay 0.70 and the probability that the customer will default is 0.30. Once the customer pays for the first purchase, the probability that the customer will pay for the repeat purchase will be 0.90. The revenue from the sale will be ₹ 2,00,000 and the cost of sale will be ₹ 160000 – these figures apply to both the initial and the repeat purchase, what is the expected payoff if the credit is granted. (06 Marks)
- c. Prepare the cash budget for July-Dec from the following information:

(i) The estimated sales, expenses etc. are as follows:

Particular	June	July	Aug	Sept	Oct	Nov	Dec
Sales	35	40	40	50	50	60	65
Purchases	14	16	17	20	20	25	28
Wages & Salaries	12	14	14	18	18	20	22
Misc. Expenses	5	6	6	6	7	7	7
Interest received	2	-	-	2	-	-	2
Sale of shares	-	-	20	-	-	-	-

Additional information:

- (a) 20% of sales are on cash & balance on credit
- (b) 1% of the credit sales are returned by the customer 2% debt are uncollectible, 50% of the good accounts receivable are collected in the month of the sales and the rest during next month.
- (c) The time-lag in payment of miscellaneous expenses and purchase in one month. Wages and salaries are paid fortnightly with a time lag of 15 days.
- (d) The company keeps a minimum cash balance of ₹ 5 lakhs. Cash in excess of ₹ 7 lakhs is invested in government securities in multiples of ₹ 1 lakh. Shortfall in the minimum cash balances are made good by borrowings from the bank. Ignore interest received and paid. (08 Marks)

### 8 Compulsory :

Two companies X and Y belong to the same risk group. The two companies are identical in every respect except that Y is levered while X is unlevered. The outstanding amount of debt of the levered company is ₹ 600000 in 10% debentures. The other information for the two companies are as follows:

Particular	X	Y
Net operating Income	150000	150000
Interest on debt	-	60000
	150000	90000
Equity Capitalization rate	0.15	0.20
Market value of equity	10,00,000	4,50,000
Market value of debt	-	6,00,000
Total value of the firm	10,00,000	10,50,000
Overall capitalization rate ( $k_0$ )	0.15	0.143
Debt/equity ratio	0	1.33

An investor owns 5% of the equity shares of company Y. Show the arbitrage process and the amount by which he could reduce his outlay through the use of leverage. Are there any limits to the process? (16 Marks)

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