PG Even Semester (CBCS) Exam., April—2018

BUSINESS ADMINISTRATION

(2nd Semester)

Course No. : MBACC–208

(Financial Management)

Full Marks : 70
Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer **all** questions

1. *(a)* What are the three major functions of financial manager? 6

(b) Contrast the objective of maximising earnings with that of maximising wealth. 8

2. *(a)* Differentiate between perpetuities and annuities. 4

(b) The Hindustan Machine Company is considering the purchase of a debarking machine that is expected to provide cash flows as follows :

Cash flow	*End of Year* (in ₹)									
	1	2	3	4	5	6	7	8	9	10
	1200	2000	2400	1900	1600	1400	1400	1400	1400	1400

If the appropriate annual discount rate is 14 percent, what is the present value of this cash flow stream? 10

OR

3. *(a)* Briefly narrate the essential assumptions underlying CVP analysis. 4

(b) Mr. Murthy has gathered the following information :

Operating income for Murthy Inc. for the year 2017 on production and sales volume (*Q*) of 200000 units was summarized in the financial accounting operating statement of comprehensive income below. Additional accounting information was also provided regarding the inventoriable fixed costs and the period (non-manufacturing, operating expenses) variable costs per unit shown below the operating income :

Murthy Inc :
Operating statement of comprehensive income year ended 2017

	(₹)
Sales Revenue	31,20,000
Cost of Goods Sold (COGS)	19,20,000
Gross margin	12,00,000
Operating Expenses	13,80,000
Operating Income (loss)	1,80,000
Fixed cost (inventoriable)	6,00,000
Variable cost per unit (non-manufacturing)	6·00

(i) Calculate the firm's variable manufacturing cost per unit in 2017.

(ii) Calculate the firm's fixed marketing and distribution cost in 2017.

(iii) Because the firm's gross margin per unit is ₹ 6, Murthy believes that if his firm had produced and sold 230000 units, it would have covered the ₹ 13,80,000 of marketing and distribution cost and enabled the company to break-even for the year. Calculate the firm's operating income if

production and sales volume had been *Q* 230000 units. Explain briefly why Murthy is wrong.

(iv) Calculate the break-even point for the year 2017 in both sales volume and revenue.

(v) Calculate both the sales volume required to achieve operating income of ₹ 1,00,000 and the operating profit margin percentage. 10

4. *(a)* If a firm adopts hedging approach to financing, how would it finance be its current assets? 4

(b) Bharat Metal Industries has a seasonal pattern to its business. It borrows under a line of credit Central Bank at 1 per-cent over prime. Its total asset require-ments now (at year end) and estimated requirements for the coming year are (in lakhs) :

	Now	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Total asset requirements	₹ 4·5	₹ 4·8	₹ 5·5	₹ 5·9	₹ 5·0

Assume that these requirements are level throughout the quarter. At present the company has ₹ 4·5 lakhs in equity capital plus long-term debt plus permanent component of current liabilities, and this amount will remain constant throughout the year.

The prime rate currently is 11 percent, and the company expects no change in this rate for the next year. Bharat Metal Industries is also considering issuing intermediate-term debt at an interest rate of 13·5 percent. In this regard, three alternative amounts are under consideration zero, ₹ 5 lakh and ₹ 10 lakh. All additional fund requirements will be borrowed under the company's bank line of credit.

(i) Determine the total borrowing cost for short- and intermediate-term debt under each of the three alternatives for the coming year. (Assume that there is no change in the current liabilities other than borrowings.) Which alternative is lowest in cost?

(ii) Is there a consideration other than expected cost that deserves your attention? 10

OR

5. *(a)* Write a brief note on Bowmol model of optimization of cash. 4

(b) Calculate the average investment in inventory, assuming a 360-day year, for *ABC* Enterprise on the basis of the following information provided by the company in each case : 10

(i) The firm has sales of ₹ 60 crore, a gross margin of 15 percent and an inventory turnover ratio of 10

(ii) The firm has a cost of goods sold (COGS) figure of ₹ 54 crore and an average age of inventory of 10 days

(iii) The firm has a cost of goods sold figure of ₹ 120 crore and an inventory turnover ratio of 60

(iv) The firm has a sales figure of ₹ 150 crore, a gross margin of 20 percent, and an average age of inventory of 15 days

6. *(a)* Contrast the internal rate of return method of project evaluation and selection with the net present value method. 4

(b) Jindal Inc. has two investment proposals, which have the following characteristics :

Period	Project A			Project B		
	Cost (₹)	Profit after tax (₹)	Net cash flow (₹)	Cost (₹)	Profit after tax (₹)	Net cash flow (₹)
0	9,000	—	—	12,000	—	—
1		1,000	5,000		1,000	5,000
2		1,000	4,000		1,000	5,000
3		1,000	3,000		4,000	8,000

For each project, compute its payback period, its net present value, and its profitability index using a discount rate of 15 percent. 10

OR

7. *(a)* If capital rationing is not optimal, why would any company use it? Explain. 4

(b) *ABC* India Ltd. is considering a new product line to supplement its range line. It is anticipated that the new product line will involve cash investment of ₹ 7,00,000 at time *O* and ₹ 10,00,000 in year 1. After-tax cash inflows of ₹ 2,50,000 are expected in year 2, ₹ 3,00,000 in year 3, ₹ 3,50,000 in year 4 and ₹ 4,00,000 each year thereafter through year 10. Though the

product line might be viable after year 10, the company prefers to be conservative and end all calculations at that time.

(i) If the required rate of return is 15 percent, what is the net present value of the project? Is it acceptable?

(ii) What is its internal rate of return?

(iii) What would be the case if the required rate of return was 10%?

(iv) What is the project's payback period? 10

8. *(a)* Define arbitrage and explain how it affects the issue of capital structure. 4

(b) *ABC* Typewriter Company and *XYZ* Typewriter Inc. are identical except for capital structures. *ABC* has 50 percent debt and 50 percent equity financing, whereas *XYZ* has 20 percent debt and 80 percent equity financing. (All percentages are in market value term.) The borrowing rate for both companies is 13 percent in a no-tax world and capital markets are assumed to be perfect. The earnings of both the

companies are not expected to grow, and all earnings are paid out to shareholders in the form of dividends.

(i) If you own 2 percent of common stock of *ABC*, what is your return if the company has net operating income of ₹ 3,60,000 and the over-all capitalization rate of the company, k_o, is 18 percent? What is the implied equity capitalization rate, k_e?

(ii) *XYZ* has the same net operating income as *ABC*. What is the implied equity capitalizations rate of *XYZ*? Why does it differ from that of *ABC*? 10

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