THE INSTITUTE OF BANKERS, BANGLADESH (IBB)

99th Banking Professional Examination, 2024

AIBB

Management Accounting (MA)

Subject Code : 2 0 9

Time—3 hours and 30 minutes
Full marks—100
Pass marks—45

[N.B. The figures in the right margin indicate full marks. Answer any **five** *questions. Different parts of a question should be answered in the same place. Use of a non programmable calculator in the examination hall is permissible.]*

Marks

1. (*a*) Differentiate between Financial Accounting and Managerial Accounting based on their purposes, uses and time horizon. 8

   (*b*) "Managerial Accounting is helpful in managerial decision making"—Discuss the statement. Mention the tools of decision making. 6

   (*c*) Discuss the functions of Management Accounting. 6

2. (*a*) Define break-even point. How does break-even analysis help credit officer in taking lending decision? 5

   (*b*) A company manufactured and sells a single product which has the following cost and selling price structure.

	Tk/Unit	Tk/Unit
Selling price		120
Direct material	22	
Direct labor	36	
Variable overhead	14	
Fixed overhead	12	
		84
Profit per unit		36

The fixed overhead absorption rate is based on the normal capacity of 2,000 units per month. Assume that the same amount is spent each month, on fixed overhead.
Budgeted sales for the next month are 2,200 units.

You are required to calculate : 3×5=15

(*i*) the break-even point, in sales units per month;
(*ii*) the margin of safety for next month;
(*iii*) the budgeted profit for next month;
(*iv*) the sales required to achieve a profit of Tk. 96,000 in a month;
(*v*) the break-even revenue that must be generated in order to break-even.

3. (*a*) Discuss briefly the importance of budgetary control system with special reference to banking organization. 5

   (*b*) HF House is a family owned restaurant that specilizes in Scandinavian-style food. Data concerning the restaurant's monthly revenues and costs appear below (q refers to the number of meals served) :

	Formula
Revenue	Tk. 16·50q
Cost of ingredients	Tk. 6·25q
Wages and salaries	Tk. 10,400
Utilities	Tk. 800+Tk. 0·20q
Rent	Tk. 2,200
Miscellaneous	Tk. 600+Tk. 0·80q

Required :

(*i*) Prepare the restaurants planning budget for April assuming that 1800 meals are served. 4

(*ii*) Assume that 1700 meals were actually served in April. Prepare a flexible budget for this level of activity. 4

(*c*) The actual results for April appear below. Prepare a flexible budget performance report for the restaurant for April. 7

Revenue	Tk. 27,920
Cost of ingredients	Tk. 11,110
Wages and salaries	Tk. 10,130
Utilities	Tk. 1,080
Rent	Tk. 2,200
Miscellaneous	Tk. 2,240

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Marks

4. (*a*) Comparative financial statement data for ABC company are as follows :

Assets	**2023**	**2022**
Cash and cash equivalents	Tk. 3	6
Accounts receivable	,, 22	24
Inventory	,, 50	40
Total current assets	Tk. 75	70
Property, plant and equipment	Tk. 240	200
Less accumulated depreciation	,, 65	50
Net property, plant and equipment	Tk. 175	150
Total assets	Tk. 250	Tk. 220
Liabilities and shareholder's equity		
Accounts payable	Tk. 40	Tk. 36
Common stock	,, 150	,, 145
Retained earnings	,, 60	,, 39
Total liab and shareholder's equity	Tk. 250	Tk. 220

For 2023 year, the company reported net income are as follows :

Sales	Tk. 275
Cost of goods sold	,, 150
Gross margin	Tk. 125
Selling and administrative expense	,, 90
Net income	Tk. 35

In the year, 2023, ABC company declared and paid a cash dividend. There were no sales of property, plant and equipment during 2023. The company did not repurchase any of its own stock 2023.

Required :

(*i*) Using the indirect method, prepare a statement of cash flows for 2023. 15

(*ii*) Compute ABC company's free cash flow for 2023. 5

5. (*a*) How does an increase in the income tax rate affect the break-even point? Explain. 4

(*b*) Write down the assumption of Cost-Volume Profit (CVP) analysis. 4

(*c*) XYZ company manufactures and sells a specialized cordless telephone for high electromagnetic radiation environments. The company's contribution format income statement for the most recent year is given below :

	Total (Tk.)	**Per unit (Tk.)**
Sales (20,000 units)	1,20,000	60
Variable expenses	9,00,000	45
Contribution margin	3,00,000	15
Fixed expenses	2,40,000	
Net operating income	60,000	

Management is anxious to increase the company's profit and has asked for an analysis of a number of items.

Required :

(*i*) Compute the company's CM Ratio and variable expenses ratio. 4

(*ii*) Compute the company's break-even point in both units sales and taka sales. Use the equation method 4

(*iii*) Refer to the original data. Assume that next year management wants the company's to earn a profit of at least Tk. 90,000. How many units have to be sold to earn this target profit? 4

6. (*a*) When a bank prefer using NPV over IRR for capital project evaluation? 4

(*b*) ABC company is considering a new product line to supplement its expanding market share. It is anticipated that the new product line will involve cash investment of Tk. 6,00,000 initially. 16

After tax cash inflows of the project are expected as per following table although the cash flows do not consider the depreciation. The company follows straight-line depreciation method.

Its estimated useful life is 5(five) years with salvage value of Tk. 1,00,000. Cost of capital is 10%.

End of the year	**Amount of cash flow (in Tk.)**
1	2,50,000
2	1,75,000
3	1,50,000
4	2,25,000
5	1,95,000

Required : Calculate (*i*) Payback period (*ii*) NPV (*iii*) Discounted payback period (*iv*) IRR (*v*) Profitability index.

Marks

7. (*a*) What are the factors to be considered while assessing working capital requirement of financial institutions? 4

(*b*) ABC company manufactures furniture. Identify he current assets and current liabilities likely to be found on their balance sheet. Classify each item as a component of working capital (Current Asset—Current Liabilities) and calculate the company's net working capital. 8

Provided information :

— Cash	:	Tk. 1,00,000
— Account receivable	:	„ 2,50,000
— Inventory (raw materials a finished goods)	:	„ 4,00,000
— Prepaid insurance	:	„ 20,000
— Accounts payable	:	„ 1,50,000
— Accrued salaries	:	„ 30,000
— Short-term loan	:	„ 1,00,000

(*c*) Company XYZ is considering two alternative cash management strategies.

Option A : Maintain a minimum cash balance of Tk. 50,000. The annual cost of cash holding cash is 2%.

Option B : Implement a lockbox system that is expected to reduce daily cash collections by 2 days, leading to an annual cash saving of Tk. 15,000. The annual fee for the lock box system is Tk. 8,000.

(*i*) Calculate the annual cash holding cost for option 4

(*ii*) Determine the optimal cash management strategy. For company XYZ considering both cost savings and holding costs. 4

8. ABC company which is an MNC sells mobile telephones. It supplies customers with telephones and wireless telephone connections. Customers pay an annual fee plus a monthly charge based on calls mad. The company has recently employed a consultant to install a balanced scorecard system of performance measurement and to benchmark the results against those of ABC com's competitors. Unfortunately the consultant was called away before the work was finished. You have been asked to complete the work. The following data is available. 20

ABC Company
Operating data for the year ended

Sales revenue	Tk. 480 million
Sales attributable to new products	Tk. 8 million
Average capital employed	Tk. 192 million
Profit before interest and tax	48 million
Average number of customer	19,60,000
Average number of telephones retuned for repair each year	10,000
Number of bill queries	12,000
Number of customer complaint	21,600
Number of customer lost	1,17,600
Average number of telephones unrepaired at the end of each day	804

Required :

Calculate the following ratios and other statistics for ABC com. for the year ended 31 December 2023 :

(*i*) Return on capital employed;
(*ii*) Return on sales (operating margin);
(*iii*) Asset turnover;
(*iv*) Average wait for telephone repair (in days);
(*v*) Percentage of customers lost per annum;
(*vi*) Percentage of sales attributable.

9. (*a*) What are the purpose of analyzing financial statements of borrowers by the bank? 6

(*b*) The financial statements of BB company are given below : 14

BB Company
Income statement (2023)

Sales	Tk. 80,00,000
Cost of goods sold	„ 52,60,000
Gross profit	„ 27,40,000
Selling and administrative	„ 15,00,000
Operating profit	„ 12,40,000
Interest expenses	„ 1,40,000
Income before tax	„ 11,00,000
Tax expenses	„ 4,40,000
Net income	6,60,000

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Marks

Statement of Financial Position

	2023	2022
Cash	Tk. 2,00,000	Tk. 50,000
Accounts receivable	12,00,000	9,50,000
Inventory	18,40,000	15,00,000
Total current assets	32,40,000	25,00,000
Fixed assets	32,00,000	30,00,000
Total assets	Tk. 64,40,000	Tk. 55,00,000
Accounts payable	Tk. 8,00,000	7,20,000
Bank loan	6,00,000	1,00,000
Total current liabilities	14,00,000	8,20,000
Bonds payable	9,00,000	10,00,000
Total liabilities.	23,00,000	18,20,000
Common stock (1,30,000 share)	3,00,000	3,00,000
Retained earnings	38,40,000	33,80,000
Total liabilities & equity	Tk. 64,40,000	Tk. 55,00,000

Note : The common share are trading in the stock market for Tk. 40 each.

Required : Calculate the following ratio for 2023 : 2×7=14

(*i*) Current ratio
(*ii*) Quick ratio
(*iii*) Leverage ratio
(*iv*) Average collection period
(*v*) Time interest earned ratio
(*vi*) Return on equity ratio
(*vii*) Price earning ratio.

10. Write short notes on any **five** of the following 4×5=20

(*i*) Financial leverage
(*ii*) Economic Order Quality (EOQ)
(*iii*) Sunk cost
(*iv*) Just in time management
(*v*) Zero-Based Budgeting (ZBB)
(*vi*) Sensitivity analysis
(*vii*) Non-discounted capital budgeting technique
(*viii*) Standard costing.

[বাংলা অনুবাদ]

[দ্রষ্টব্য : ডান পাশের সংখ্যা প্রশ্নের পূর্ণমান জ্ঞাপক। যে কোনো পাঁচটি প্রশ্নের উত্তর দিন।]

নম্বর

১। (ক) উদ্দেশ্য, ব্যবহারকারী ও সময়ের ব্যপ্তির উপর ভিত্তি করে আর্থিক হিসাববিজ্ঞান ও ব্যবস্থাপনা হিসাববিজ্ঞানের মধ্যে পার্থক্য আলোচনা করুন। ৮

(খ) "ব্যবস্থাপনা হিসাববিজ্ঞান ব্যবস্থাপনার সিদ্ধান্ত গ্রহণে সহায়ক"—বিবৃতিটি আলোচনা করুন। সিদ্ধান্ত গ্রহণের উপকরণসমূহ উল্লেখ করুন। ৬

(গ) ব্যবস্থাপনা হিসাববিজ্ঞানের কাজগুলো আলোচনা করুন। ৬

২। (ক) সমচ্ছেদ বিন্দু বর্ণনা করুন। সমচ্ছেদ বিন্দু বিশ্লেষণ কীভাবে ঋণ কর্মকর্তাকে ঋণ প্রদান সংক্রান্ত সিদ্ধান্ত গ্রহণে সাহায্য করে? ৫

(খ) ইংরেজি অংশ দেখুন। ১৫

৩। (ক) ব্যাংকিং প্রতিষ্ঠান বিবেচনায় বাজেটীয় নিয়ন্ত্রণ ব্যবস্থার গুরুত্ব সম্পর্কে আলোচনা করুন। ৫

(খ) ইংরেজি অংশ দেখুন। ৮

(গ) ইংরেজি অংশ দেখুন। ৭

৪। ইংরেজি অংশ দেখুন। ১৫+৫=২০

৫। (ক) আয় হার বৃদ্ধি কীভাবে সমচ্ছেদ বিন্দুকে প্রভাবিত করে? ব্যাখ্যা করুন। ৪

(খ) ব্যয়-পরিমাণ-মুনাফা বিশ্লেষণের অনুমানসমূহ বর্ণনা করুন। ৪

(গ) ইংরেজি অংশ দেখুন। ১২

৬। (ক) কখন একটি ব্যাংক মূলধন প্রকল্প মূল্যায়নের জন্য IRR এর চেয়ে NPV ব্যবহার করতে পছন্দ করে? ৪

(খ) ইংরেজি অংশ দেখুন। ১৬

৭। (ক) আর্থিক প্রতিষ্ঠানের কার্যকরী মূলধনের প্রয়োজনীয়তাগুলো মূল্যায়ন করার সময় কোন বিষয়গুলো বিবেচনা করতে হবে? ৪

(খ) ইংরেজি অংশ দেখুন। ৮

(গ) ইংরেজি অংশ দেখুন। ৮

৮। ইংরেজি অংশ দেখুন। ২০

৯। (ক) ব্যাংক কর্তৃক ঋণ গ্রহীতার আর্থিক বিবরণীসমূহ বিশ্লেষণ করার উদ্দেশ্যসমূহ কী? ৬

(খ) ইংরেজি অংশ দেখুন। ১৪

১০। টীকা : ইংরেজি অংশ দেখুন। ৪×৫=২০