

**THE INSTITUTE OF BANKERS, BANGLADESH (IBB)**  
**94TH BANKING DIPLOMA EXAMINATION, 2022**  
**DAIBB**

**MANAGEMENT ACCOUNTING (MA)**

Subject Code : 

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Time—3 hours and 30 minutes

Full marks—100

Pass marks—50

*[N.B. The figures in the right margin indicate full marks. Answer any five questions.]*

- |  | Marks       |                         |        |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
|--|-------------|-------------------------|--------|------|-------------------|--------|---------------------|--------|---------------------|--------|------------------|--------|----------------------|----------|------------------|--------|-------|--------|-------------------------|--------|--|
| 1. (a) Define Management Accounting. "Management Accounting is useful in Banking operations"<br>—Comment on the statement.   | 12          |                         |        |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| (b) Briefly discuss the techniques of Management Accounting.   | 8           |                         |        |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| 2. (a) Explain the following cost terms with examples :<br>(i) Overhead cost (ii) Relevant cost (iii) Opportunity cost.  | 6           |                         |        |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| (b) The following figures are available from the books of Best Manufacturing Co. for the year ended 31-12-2021:  | 14          |                         |        |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| <table border="0" style="width: 100%;"> <tr> <td style="width: 40%;">Materials :</td> <td style="width: 20%;">Taka</td> <td style="width: 20%;"></td> <td style="width: 20%;">Taka</td> </tr> <tr> <td>Stock on 1-1-2021</td> <td>10,000</td> <td>Profit for the year</td> <td>60,000</td> </tr> <tr> <td>Stock on 31-12-2021</td> <td>20,000</td> <td>Selling overhead</td> <td>50,000</td> </tr> <tr> <td>Purchase during 2021</td> <td>1,00,000</td> <td>Factory overhead</td> <td>45,000</td> </tr> <tr> <td>Wages</td> <td>75,000</td> <td>Administrative overhead</td> <td>42,000</td> </tr> </table>  | Materials : | Taka                    |        | Taka | Stock on 1-1-2021 | 10,000 | Profit for the year | 60,000 | Stock on 31-12-2021 | 20,000 | Selling overhead | 50,000 | Purchase during 2021 | 1,00,000 | Factory overhead | 45,000 | Wages | 75,000 | Administrative overhead | 42,000 |  |
| Materials :  | Taka        |                         | Taka   |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| Stock on 1-1-2021  | 10,000      | Profit for the year     | 60,000 |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| Stock on 31-12-2021  | 20,000      | Selling overhead        | 50,000 |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| Purchase during 2021   | 1,00,000    | Factory overhead        | 45,000 |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| Wages  | 75,000      | Administrative overhead | 42,000 |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| <b>Required :</b>  |             |                         |        |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| (i) Prepare a Cost Sheet showing prime cost, cost of production, cost of sales and sales.  |             |                         |        |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| (ii) In 2022 the factory receives an order for a job which will require materials Tk. 12,000 and wages Tk. 7,500. Ascertain the price of the job if the company intent to earn a profit 10% higher than the percentage of profit earned on 2021. Assume that factory overhead has gone up by 16 $\frac{2}{3}$ % and selling overhead has gone down by 20% in 2022. Further assume that factory overhead is recovered as a percentage of the wages and administrative and selling overhead as a percentage of works costs.  |             |                         |        |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| 3. (a) Define Break-even point. What are the reasons of changing Break-even point?   | 5           |                         |        |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| (b) AZ Company's forecast indicate a net profit of 5% on annual sales of 20,000 units at Tk. 20 each and with variable cost estimated at Tk. 15 per unit. This is regarded by the Managing Director to be unsatisfactory and so four proposals are put forwarded to improve the situation. The four proposals are :<br>(1) Administration now on a regional basis to be centralised and to reduce fixed costs by Tk.12,000;<br>(2) Institute a cost reduction program to save Tk. 1.00 per unit of variable costs;<br>(3) Increase of units sold by 20% although this would reduce selling price by 5%;<br>(4) Increase selling price by 10% although this would reduce the number of units sold by 5%.<br>Calculate for each proposal separately :<br>(i) The new profit achieved;<br>(ii) The percentage return on sales value;<br>(iii) The new break-even sales volume in units. | 15          |                         |        |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| 4. From the following Balance Sheets and other information relating to two companies in the same industry, calculate :   | 20          |                         |        |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| (i) Profitability ratio to indicate which company is operating more profitability;   |             |                         |        |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| (ii) Liquidity ratio to test which company is in a better position to pay of its short-term debts;   |             |                         |        |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| (iii) Activity ratio showing stock turnover ratio and assets turnover ratio;   |             |                         |        |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| (iv) Which company may be extended a loan of Tk. 20,00,000 at 12% interest?  |             |                         |        |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |
| (v) Which company retains the larger portion of income in the business?  |             |                         |        |      |                   |        |                     |        |                     |        |                  |        |                      |          |                  |        |       |        |                         |        |  |

**Balance Sheet as on 31st December, 2020**

Assets	Southern Ltd. (Taka)	Eastern Ltd. (Taka)
Cash	1,80,000	2,50,000
Accounts receivable	3,30,000	6,30,000
Merchandise inventory	12,30,000	9,50,000
Prepaid expenses	30,000	70,000
Plant & equipment	16,95,000	24,00,000
<b>Total assets</b>	<b>34,65,000</b>	<b>43,00,000</b>

*[Please turn over]*

Liabilities & Equity	Southern Ltd. (Taka)	Eastern Ltd. (Taka)
Accounts Payable	2,40,000	2,50,000
Sundry Creditors	6,60,000	8,00,000
10% Debentures	5,00,000	10,00,000
Retained Earnings	9,65,000	5,00,000
Share Capital of Tk. 100 each	11,00,000	17,50,000
<b>Total</b>	<b>34,65,000</b>	<b>43,00,000</b>

Other related information from income statement :

Sales	56,00,000	82,00,000
Cost of goods sold	40,00,000	64,80,000
Other operating expenses	8,00,000	8,60,000
Interest expenses	40,000	80,000
Income tax	3,00,000	3,10,000
Dividends	1,50,000	2,00,000

5. (a) Why is cash budget dependent on both operating and capital budget? 4  
 (b) Hamdard, a producer of herb-based sunscreens is ready to begin its third quarter in which peak sales occur. The company has requested a Tk. 40,000, 90 day loan from its bank to help meet cash requirement during the quarter. Since Hamdard has experience difficulty in paying off its loans in the past, the loan officer of the bank has asked the company to prepare a cash budget for the quarter. In response to this request, the following data have been assembled : 16  
 (1) On July 1, the beginning of the third quarters, the company will have a cash balance of Tk. 44,500.  
 (2) Actual sales for the last two months and the budgeted sales for the third quarter are as follows (all sales are on account) :

	Taka
May (Actual)	2,50,000
June (Actual)	3,00,000
July (Budgeted)	4,00,000
August (Budgeted)	6,00,000
September (Budgeted)	3,20,000

Past experience shows that 20% of the month sales are collected in the month of sales 70% in the following month of sales and 5% in the second month following sale. The remainder is uncollectible.

- (3) Budgeted merchandise purchases and budgeted expenses for the third quarter are given below:

	July (\$)	August (\$)	September (\$)
Merchandise purchase	2,40,000	3,50,000	1,75,000
Salaries and wages	45,000	50,000	40,000
Advertising	1,30,000	1,45,000	80,000
Rent payments	9,000	9,000	9,000
Depreciation	10,000	10,000	10,000

Merchandise purchases are paid 50% in the month of purchase and the remainder in the next month. Accounts payable for merchandise purchase on June which will be paid during July total \$ 90,000.

- (4) Equipment costing \$ 10,000 will be purchased for cost during July.  
 (5) In preparing cash budget, assume that company needs to maintain a minimum cash balance of \$ 30,000 at the end of each month.  
 (6) Company can borrow the money from the bank and paid off the loan at the end of the quarter if possible. Ignore the interest.

**Required :** Prepare a cash budget by month and in total for the third quarter. [Show all the necessary working and the calculations.]

6. (a) Why is it necessary to convert accrual basis net income to cashbasis net income when preparing a statement of cash flows? 5  
 (b) Comparative balance sheets of SME company are shown below : 15

SME Company		
Comparative Balance Sheets, December 31		
Assets	2021 (\$)	2020 (\$)
Cash	41,000	57,000
Accounts receivable	77,000	64,000
Inventory	1,72,000	1,40,000
Prepaid expenses	12,140	16,540
Land	1,10,000	1,50,000
Equipment	2,15,000	1,75,000
Accumulated depreciation (Equipment)	(70,000)	(42,000)
Building	2,50,000	2,50,000
Accumulated depreciation (Building)	(70,000)	(50,000)
<b>Total assets</b>	<b>7,37,140</b>	<b>7,60,540</b>



	2021 (\$)	2020 (\$)
Liabilities		
Accounts payable	58,000	45,000
Bill payable	2,35,000	2,65,000
Common stock \$ 1 per	2,80,000	2,50,000
Retained earnings	1,64,140	2,00,540
Total	<u>7,37,140</u>	<u>7,60,540</u>

**Additional information :**

- (1) Operating expenses include depreciation expenses \$ 55,000 and charges from prepaid expenses of \$ 4,400.
- (2) Land was sold for cash at cost.
- (3) Cash dividends of \$ 84,290 were paid.
- (4) Net income for 2021 was \$ 47,890.
- (5) Equipment was purchased for \$ 80,000 cash. In addition, equipment costing \$ 40,000 with a book value of \$ 33,000 was sold for \$ 37,000 cash.
- (6) Bonds were converted at face value by issuing 30,000 shares of \$ 1 par value of common stock.

**Required :** Prepare a statement of cash flows for 2021 using the indirect method.

7. (a) Discuss the use of time value of money in capital budgeting. 5
- (b) Bengal Company Ltd. is considering the following two projects at the beginning of 2021. Only one project will be accepted. The Company uses the net present value and profitability methods for this purpose. The particulars of the expected net profit (before tax) are given below : 15

	Project-A	Project-B
Initial investment	\$ 20,00,000	\$ 25,00,000
Estimated life in years	4	5
Net profit before tax at the end of :		
2021	5,00,000	9,00,000
2022	7,00,000	8,00,000
2023	8,00,000	7,00,000
2024	7,00,000	6,00,000
2025	—	3,00,000

It is estimated that each project will require an additional working capital of Tk. 2,00,000. The company can arrange fund at 10%. The rate of income tax is 50%. The next present value of Tk. 1 to be received at the end of each year at 10% is given below :

Year	1	2	3	4	5
P.V. Factor	0.9091	0.827	0.751	0.683	0.620

Which project should be accepted?

8. (a) What is inventory? What are the objectives of inventory management? 5
- (b) The purchase department of an organization has received an offer of quantity discounts on its order of materials as under : 15

Price per tons (Taka)	Tons
1,400	Less than 500
1,380	500 and less than 1,000
1,360	1,000 and less than 2,000
1,340	2,000 and less than 3,000
1,320	3,000 and above

The annual requirement of the material is 5,000 tons. The delivery cost per order is Tk. 1,200 and the annual stock holding cost is estimated at 20 percent of the average inventory.

The purchase department wants you to consider the following purchase options and advise which among them will be the most economical order quantity, presenting the information in a tabular form.

The purchase quantity options to be considered are 400 tons, 500 tons, 1,000 tons, 2,000 tons and 3,000 tons.

9. (a) Discuss the different aspects of working capital management. 6
- (b) You are the financial manager of a company. You have been assigned to apply to a bank for working capital. From the following information supplied by the cost accountant you are required to calculate the working capital requirement : 14

	Taka (in lac)	Tk. (in lac)
Sales		24.00
Less : Cost of goods sold :		
Direct material used	9.00	
Direct wages	3.50	
Manufacturing expenses	2.50	
Depreciation	3.00	
Total manufacturing cost	18.00	
Less : stock of finished goods (10%)	1.80	16.20
		7.80

[Please turn over

Gross profit		
Less :		
Administrative expenses	1.50	
Selling expenses	1.30	2.80
Profit before tax		5.00
Provision for taxation (40%)		2.00
Profit after tax		3.00

The additional information are :

- Work in progress 15 percent of the production in terms of physical units of which degree of completion is : material 100 percent, other expenses 50 percent;
- The firm has a policy of keeping two months consumption of material in stock;
- Time lag for all expenses 1 month;
- Creditors grants credit for 45 days;
- Debtors are granted credit for 2 months;
- 25 percent of the sales are on cash;
- Cash balance required Tk. 50 thousand.

10. Write short notes on any five of the following :-

4×5=20

- Credit analysis
- Sunk Cost
- Limitations of break-even analysis
- Receivables Management
- Pay-back period
- Master Budget
- Management Report
- Operating Leverage

[বাংলা অনুবাদ]

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

- |   | নম্বর  |
|---|--------|
| ১। (ক) ব্যবস্থাপনা হিসাববিজ্ঞানের সংজ্ঞা দিন। "ব্যবস্থাপনীয় হিসাববিজ্ঞান ব্যাংকিং কার্যক্রমে সহায়ক"—সম্ভব করুন। | ১২     |
| (খ) ব্যবস্থাপনীয় হিসাববিজ্ঞানের কৌশলসমূহ সংক্ষেপে বর্ণনা করুন।   | ৮      |
| ২। (ক) নিম্নোক্ত ব্যয় ধারণাসমূহ উদাহরণসহ ব্যাখ্যা করুন :   | ৬      |
| (i) উপরিব্যয় (ii) প্রাসঙ্গিক ব্যয় (iii) সুযোগ ব্যয়।  |        |
| (খ) ইংরেজি অংশ দেখুন।   | ১৪     |
| ৩। (ক) সম্মুখ বিন্দু সংজ্ঞা দিন। সম্মুখ বিন্দু পরিবর্তনের কারণসমূহ কী কী?   | ৫      |
| (খ) ইংরেজি অংশ দেখুন।   | ১৫     |
| ৪। ইংরেজি অংশ দেখুন।  | ২০     |
| ৫। (ক) নগদান বাজেট কেন পরিচালন ও মূলধন উভয় বাজেটের উপর নির্ভরশীল?  | ৪      |
| (খ) ইংরেজি অংশ দেখুন।   | ১৬     |
| ৬। (ক) নগদ প্রবাহ বিবরণী তৈরিতে বকেয়াভিত্তিক নীট মুনাফা নগদভিত্তিক নীট মুনাফায় রূপান্তর করা প্রয়োজন হয় কেন?   | ৫      |
| (খ) ইংরেজি অংশ দেখুন।   | ১৫     |
| ৭। (ক) মূলধন বাজেট-এ টাকার সময়মূল্য আলোচনা করুন।   | ৫      |
| (খ) ইংরেজি অংশ দেখুন।   | ১৫     |
| ৮। (ক) মজুদ পণ্য কী? মজুদ পণ্য ব্যবস্থাপনার উদ্দেশ্য কী?  | ৫      |
| (খ) ইংরেজি অংশ দেখুন।   | ১৫     |
| ৯। (ক) চলতি মূলধন ব্যবস্থাপনার বিভিন্ন দৃষ্টিভঙ্গি আলোচনা করুন।   | ৬      |
| (খ) ইংরেজি অংশ দেখুন।   | ১৪     |
| ১০। নিম্নের যে কোনো পাঁচটি বিষয়ের উপর টীকা লিখুন :   | ৪×৫=২০ |
| (ক) ঋণ বিশ্লেষণ   |        |
| (খ) নিমজ্জিত ব্যয়  |        |
| (গ) সম্মুখ বিন্দু বিশ্লেষণের সীমাবদ্ধতাসমূহ   |        |
| (ঘ) প্রাপ্য হিসাব ব্যবস্থাপনা   |        |
| (ঙ) বিনিয়োগ কেন্দ্রকাল   |        |
| (চ) সামগ্রিক বাজেট  |        |
| (ছ) ব্যবস্থাপকীয় বিবরণী  |        |
| (জ) অপারেটিং লিভারেজ।   |        |

৩৮৫এক্স