

THE INSTITUTE OF BANKERS, BANGLADESH (IBIB)
92nd Banking Diploma Examination
DAIBB
Management Accounting (MA)
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. Different parts of a question should be answered in a same place. Use of calculator in the examination hall is permissible.]

- ✓1. (a) "Management accounting deals with decision making". How management accounting helps bankers' in their decision making? Marks 10
- (b) "Three major tasks of management one planning, directing and controlling." How management accounting helps management to perform these tasks? 10
2. (a) "A variable cost is a cost that varies per unit of product, whereas a fixed cost is constant per unit of product." Do you agree? Explain. 6
- (b) The following figures have been taken from the records of Casio Calculators Ltd. for the year ending 31st December, 2020 : 14

	Taka
Stock of materials 01-01-2020	30,000
Stock of materials 31-12-2020	10,000
Purchase of materials	60,000
Wages paid	90,000
Factory expenses	20,000
Administrative expenses	9,000
Stock of finished goods on 01-01-20	10,000
Stock of finished goods on 31-12-20	50,000
Sales	2,12,000

Total number of machine hours worked during the year—5,000 hours

Total number of Labor hours worked during the year—4,500 hours.

Total number of calculators produced during the year—5,000 units

The company was required to quote for the supply of 1,000 calculators during the year 2021. The calculators to be quoted one of uniform quality and similar to those manufactured during the year 2020. However as from January 2021, the cost of materials has increased by 10% and cost of factory labor by 5%. The estimated machine hours for the quotation order are 1000 hours and estimated labor hour required 900 hours. The factory expenses are recovered on the basis of machine hours and administrative expenses are recovered on the basis of labour hours worked.

Requirement : Prepare a statement showing the price to be quoted to give the same percentage of net profit on sales as was realized during 2020.

3. (a) Company A's cost structure includes costs that are mostly variable, whereas Company B's cost structure includes cost that are mostly fixed. In a time of increasing sales, which company will tend to realise the most rapid increase in profits? Explain. 8
- (b) The most recent income statement for Whitney Company appears below : 12

Whitney Company Ltd.
Income statement
For the year ended December-31

	Taka	Taka
Sales (45,000 units at Tk. 10 per unit)		4,50,000
Less cost of goods sold :		
Direct materials	90,000	
Direct labor	78,300	
Manufacturing overhead	98,500	
Gross margin		2,66,800
Less operating expenses :		
Selling expenses		1,83,200
Variable : Sales commission	Taka 27,000	
Shipping	5,400	
Fixed (advertising and salaries)	32,400	
Administrative expenses :	1,20,000	
Variable (billing and other)	1,800	
Fixed (salaries and other)	48,000	
Net operating loss		2,02,200
		19,000

All variable expenses in the company vary in terms of unit sold, except for sales commission, which are based on sales taka. Variable manufacturing overhead is 30 paise per unit. There were no beginning or ending inventories. Whitney Company's plant has a capacity of 75,000 units per year.

[Please turn over]

Required :

- (1) The President is considering two proposals prepared by members of his staff :
- For next year, the Vice President would like to reduce unit selling price by 20%. She is certain that this would fill the plant to capacity;
 - For next year, the sales manager would like to increase the unit selling price by 20%, increase the sales commission to 9% of sales and increase advertising by Tk. 1,00,000. Based on marketing studies, he is confident this would increase unit sales by one third. Which proposal is acceptable?
- (2) Refer to the original data, the President believes. It would be a mistake to change the unit selling price. Instead, he wants to use less costly raw materials there by reducing unit cost by 70 percents. How many units would have to be sold next year to earn a target profit of Tk. 30,200?
- (3) Refer to the original data, Whitney Company Board of Directors' believe that the company's problem lies in inadequate promotion. By how much can advertising be increased and still allow the company to earn a target profit of 4.5% on sales of 60,000 units.
4. (a) "The information in a statement of cash flows should help investors, creditors and others to assess".—Explain the statement. 6
- (b) The comparative balance sheets of Rupali Ltd. as of December, 31 are presented below : 14

Rupali Ltd.
Comparative Balance Sheets
December-31

Assets	2020 Taka	2019 Taka
Cash	71,000	45,000
Accounts receivable	44,000	62,000
Inventory	1,51,450	1,42,000
Prepaid expenses	15,280	21,000
Land	1,05,000	1,30,000
Equipment	2,28,000	1,55,000
Accumulated Depreciation Equipment	(45,000)	(35,000)
Buildings	2,00,000	2,00,000
Accumulated Depreciation Buildings	(60,000)	(40,000)
Total=	7,09,730	6,80,000
Liabilities and stock holders equity :		
Account payable	47,730	40,000
Bonds payable	2,60,000	3,00,000
Common stock Tk. 10 par	2,00,000	1,60,000
Retained earnings	2,02,000	1,80,000
Total =	7,09,730	6,80,000

Additional Information :

- Operating expenses include depreciation expenses of Tk. 42,000 and changes from prepaid expenses of Tk. 5,720
- Land was sold for cash at book value
- Cash dividends of Tk. 15,000 were paid
- Net income for 2020 was Tk. 37,000
- Equipment was purchased for Tk. 95,000 cash. In addition, equipment costing Tk. 22,000 with a book value of Tk. 10,000 was sold for Tk. 6,000 cash
- Bonds were converted at face value by issuing 4,000 shares of Tk. 10 par value common stock.

Instructions : Prepare a statement of cash flows for the year ended December 31, 2020; using the indirect method.

5. (a) Why does the net present value method favor larger projects over smaller ones when used to choose between mutually exclusive projects? Is this a problem? 4
- (b) Why might net present value method and internal rate of return method lead to conflicts in project ranking? 4
- (c) Hamim Ltd. has a machine which has been in operation for 2 years, its estimated remaining useful life is 4 years with no salvage at the end. Its current realisable value is Tk. 25,000. The management is considering a proposal to purchase an improved model of machine which gives increased output. The relevant information is as follows : 12

Particulars	Existing machine	New machine
Purchase price	Tk. 60,000	Tk. 1,07,500
Estimated useful life	6 years	4 years
Salvage value	0	0
Annual operating hours	1,000	1,000
Selling price per unit	Tk. 3.00	Tk. 3.00
Materials per unit	Tk. 0.40	Tk. 0.40
Output per hours	15 unit	30 unit
Labor cost per hour	Tk. 11.00	Tk. 16.00
Consumable stores per year	Tk. 2,000	Tk. 1,000
Repairs and maintenance per year	Tk. 3,000	Tk. 2,000
Working capital	Tk. 10,000	Tk. 20,000
Income tax rate	35%	35%

Required : Should Hamim Ltd replace the existing machine? Assume that (i) Required rate of return is 10% and (ii) Written down value method of depreciation @ 25%.

6. (a) How does cost volume profit analysis helps in decision making?
 (b) Two manufacturing companies which have the following operating details decide to merge :

	Company A	Company B
Capacity utilization	90%	60%
Sales (Tk. lac)	540	300
Variable cost (Tk. lac)	396	225
Fixed cost (Tk. lac)	80	50

Assuming that the proposal is implemented, calculate :

- (i) Break-even sales of the merged plant and the capacity utilization at that stage
 (ii) Profitability of the merged plant at 80% capacity utilization
 (iii) Sales turnover of the merged plant to earn a profit of Tk. 25 lakh
 (iv) When the merged plant is working at a capacity to earn a profit of Tk. 75 lakh, what percentage increase in selling price is required to sustain an increase of 5% in fixed overhead.

7. (a) Discuss the importance of Cash Budget.

- (b) ABC manufacturing company will start production on 1st June 2021. The prime cost of one unit of product is estimated to be Tk. 30 out of which Tk. 10 for material, Tk. 12 labor and Tk. 8 expenses in addition to variable expenses per unit Tk. 6 is expected. Fixed expenses per month will be Tk. 18,000. Payment for material is to be made in the month following the month of purchase. One third of the sales will be for cash and the rest 2/3rd are on credit for settlement in the next month. Expenses are payable in the month in which they occurred. The selling price is fixed at Tk. 60 per unit. The number of units produced and sold are expected to be as follows :

Months :	June	July	August	September	October	November
Units :	1,000	1,250	1,600	2,100	2,050	2,500

A new machine costing Tk. 10,000 will have to be installed in June. One-fourth of price will be paid in June and the balance by equal installment in every alternative month. Dividend of Tk. 5,000 will be received on July. Interest on debenture Tk. 1,000 and income tax Tk. 500 will have to be paid in September and November respectively.

Required : Prepare a Cash Budget for the company for six months starting from June 2021, when cash balance would be Tk. 25,000.

8. (a) Define net working capital. How working capital is financed?

- (b) From the following information prepare a statement showing the estimated working capital requirements :

Budgeted sales Tk. 2,60,000 per annum. Analysis of cost of each unit :

	Taka
Raw materials	3.00
Labors	4.00
Overheads	2.00
Profits	1.00
	<u>10.00</u>

It is estimated that :

- (i) Pending used raw materials are carried in stock for three weeks and finished goods for two weeks.
 (ii) Factory processing will take three weeks.
 (iii) Suppliers' will give five weeks credit. It may be assumed that production and overheads occurred evenly throughout the year.
 (iv) Debtors are allowed 8 weeks credit period.

9. (a) Discuss the economics of lease financing.

- (b) MZ Publication is considering acquiring a machine costing Tk. 15,00,000. The company can take lease from Green Leasing Company for 7 years. The annual lease payment is Tk. 2,75,000 per year to be paid in the beginning of the year.

It has another alternative to take loan from a bank at 15% interest rate per year repayable in the beginning of the year to buy the machine. The life of machine will be 5 years with no salvage value. The company is in 40% tax bracket. The depreciation is charged on straight-line method. Which method should the company choose to finance the machine?

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

4×5=20

- (a) Time Value of Money
 (b) Working Capital Cycle
 (c) Economic Order Quantity
 (d) Sunk Cost
 (e) Master Budget
 (f) Receivable Management
 (g) Shortagring of Traditional credit analysis.

[বাংলা অনুবাদ]

দ্রষ্টব্য : ডান পাশের সংখ্যা প্রশ্নের পূর্ণমান জ্ঞাপক। যে কোনো পাঁচটি প্রশ্নের উত্তর দিন। একই প্রশ্নের বিভিন্ন অংশের উত্তর ধারাবাহিকভাবে লিখতে হবে। পরীক্ষা কক্ষ ক্যালকুলেটর ব্যবহার করা যাবে।]

	নম্বর
১। (ক) "ব্যবস্থাপনা হিসাববিজ্ঞান সিদ্ধান্ত গ্রহণ করে" ব্যবস্থাপনা হিসাববিজ্ঞান কীভাবে ব্যাংকারদের সিদ্ধান্ত গ্রহণে সহায়তা করে?	১০
(খ) "ব্যবস্থাপনার মূল কাজ হচ্ছে পরিকল্পনা প্রণয়ন, নির্দেশনা প্রদান ও নিয়ন্ত্রণ" কীভাবে ব্যবস্থাপনা হিসাববিজ্ঞান ব্যবস্থাপককে এই কাজসমূহ সম্পাদনে সহায়তা করে থাকে?	১০
২। (ক) "পরিবর্তনশীল ব্যয় হচ্ছে একটি ব্যয় যাহা প্রতি একক উৎপাদনের সাথে পরিবর্তিত হয়, যেখানে স্থির ব্যয় প্রতি একক উৎপাদনে স্থির থাকে" আপনি কি একমত? ব্যাখ্যা করুন।	৬
(খ) ইংরেজি অংশ দেখুন।	১৪
৩। (ক) A কোম্পানির ব্যয় কাঠামোতে অধিকাংশই পরিবর্তনশীল ব্যয়, যেখানে কোম্পানি B এর ব্যয় কাঠামোতে অধিকাংশই স্থির ব্যয়, বিক্রয় বৃদ্ধির সময় কোন কোম্পানির মুনাফার হার দ্রুত বৃদ্ধি পাবে? ব্যাখ্যা করুন।	৮
(খ) ইংরেজি অংশ দেখুন।	১২
৪। (ক) "নগদ প্রবাহ বিবরণীর তথ্যসমূহ বিনিয়োগকারী, পাওনাদার এবং অন্যান্য মূল্যায়নকারীর সহায়ক"—উক্তিটি ব্যাখ্যা করুন।	৬
(খ) ইংরেজি অংশ দেখুন।	১৪
৫। (ক) পারস্পরিক পরিত্যাজ্য প্রকল্পের ক্ষেত্রে নীট বর্তমান মূল্য পদ্ধতির সিদ্ধান্ত ছোট প্রকল্পের চেয়ে বড় প্রকল্পের পক্ষে যায় কেন? এটা কি একটা সমস্যা?	৪
(খ) প্রকল্প রেক্টিং এর ক্ষেত্রে কেন নীট বর্তমান মূল্য পদ্ধতি এবং অভ্যন্তরীণ মুনাফার হার পদ্ধতিতে পার্থক্য হতে পারে?	৪
(গ) ইংরেজি অংশ দেখুন।	১২
৬। (ক) ব্যয়—পরিমাণ—মুনাফা সম্পর্ক বিশ্লেষণ কীভাবে সিদ্ধান্ত গ্রহণে সহায়তা করে?	৫
(খ) ইংরেজি অংশ দ্রষ্টব্য।	১৫
৭। (ক) নগদান বাজেট এর গুরুত্ব বর্ণনা করুন।	৫
(খ) ইংরেজি অংশ দ্রষ্টব্য।	১৫
৮। (ক) নীট চলতি মূলধনের সংজ্ঞা দিন। চলতি মূলধনের অর্থায়ন কীভাবে করা হয়?	৫
(খ) ইংরেজি অংশ দ্রষ্টব্য।	১৫
৯। (ক) ইজারা অর্থসংস্থানের সুবিধাসমূহ বর্ণনা করুন।	৬
(খ) ইংরেজি অংশ দ্রষ্টব্য।	১৪
১০। নিম্নের যে কোনো পাঁচটি বিষয়ের উপর টীকা লিখুন :	৪×৫=২০
(ক) অর্থের কালীন মূল্য	
(খ) চলতি মূলধন চক্র	
(গ) মিত ফরমায়েশ পরিমাণ	
(ঘ) নিমজ্জিত ব্যয়	
(ঙ) সামগ্রিক বাজেট	
(চ) প্রাপ্য হিসাব ব্যবস্থাপনা	
(ছ) সনাতন পদ্ধতিতে ঋণগ্রহণের যোগ্যতার বিশ্লেষণের সীমাবদ্ধতাসমূহ।	