

**CMA JANUARY 2022 EXAMINATION
 INTERMEDIATE LEVEL II
 MANAGEMENT ACCOUNTING**

Course Code : CM231	Total Marks : 100
Reading Time : 15 minutes	Writing Time : 180 minutes

Instructions to Candidates

- You **MUST NOT** write anything during the reading time.
- You should attempt ALL questions.
- Answers should be properly structured and relevant.
- Carefully read ALL the requirements and sub-questions before attempting a specific question.
- ALL answers must be written in the answer book.
- **AVOID WRITING/MARKING** on the question paper at any time which may cause disciplinary action.
- Start answering each question from a fresh sheet.
- Answers should be clearly numbered with the sub-question number.

Allowable Materials

- Writing Stationaries
- Non-programmable Calculator

Assessment Structure

		<i>Sub-question</i>	<i>Marks</i>	<i>Expected Time Required</i>	
Section A	Question 1	Multiple Choice Questions	10	10	20 minutes
	Question 2	Modified True/False	5	5	10 minutes
	Question 3	Matching	5	5	10 minutes
Section B	Question 4	Essay/Computational/Case	3	20	32.50 minutes
	Question 5	Essay/Computational/Case	2	20	32.50 minutes
	Question 6	Essay/Computational/Case	3	20	32.50 minutes
	Question 7	Essay/Computational/Case	2	20	32.50 minutes
		Revision			10 minutes
		Total		100	180 minutes

RESTRICTED USE

This paper MUST NOT BE REMOVED from the examination venue

Do not turn the page until instructed

SECTION A [20 MARKS]

THERE ARE 3 (THREE) QUESTIONS IN THIS SECTION. ANSWER ALL THE QUESTIONS IN THE ANSWER SCRIPT FOLLOWING THE EXAMPLE PROVIDED FOR THE SPECIFIC QUESTION.

QUESTION 1

[(10 × 1) = 10 MARKS]

There are ten (10) multiple-choice questions with five options. Pick the option that best explains the given question. Write your answer on the answer script [DO NOT PUT ANY MARK ON THE QUESTION PAPER]. Follow the example given below in providing your answer.

Example:

(i). ICMAB stands for the –

- (a) Institute of Cost Management Accounting of Bangladesh
- (b) Institute of Cost and Management Accountants of Bangladesh
- (c) Institute for Cost Managers and Accounting of Bangladesh
- (d) Institute of Cost Management Accountants of Bangladesh
- (e) Industrial Cost Management Accountants of Bangladesh

Answer: (i) (b)

- (i) Which of the following is not an objective of managerial accounting?
 - (a) providing information for decision making and planning.
 - (b) assisting in directing and controlling operations.
 - (c) maximizing profits and minimizing costs.
 - (d) measuring the performance of managers and subunits.
 - (e) motivating managers toward the organization's goals.
- (ii) Management is interested in utilizing the full capacity of production facilities because it
 - (a) spreads variable costs over a greater number of units, thereby reducing the variable cost per unit.
 - (b) spreads fixed costs over a greater number of units, thereby reducing the fixed cost per unit.
 - (c) reduces total variable costs.
 - (d) reduces total fixed costs.
 - (e) reduced opportunity cost.
- (iii) If total costs of goods manufactured is greater than total manufacturing costs added, then
 - (a) raw materials inventory increased during the period
 - (b) raw materials inventory decreased during the period
 - (c) finished goods inventory increased during the period
 - (d) work-in-process inventory decreased during the period
 - (e) finished goods inventory decreased during the period
- (iv) A cost incurred in the past that cannot be changed by any future action is:
 - (a) Opportunity cost
 - (b) Sunk cost
 - (c) Relevant cost
 - (d) Avoidable cost
 - (e) Controllable cost
- (v) In recent years, the following has emerged as an important cost object:
 - (a) manufacturing departments
 - (b) activities
 - (c) products
 - (d) line operations
 - (e) workstations

- (vi) When using information for internal purposes, management is more concerned with information that is
- (a) timely, relevant, and reliable
 - (b) completely objective and verifiable
 - (c) exclusively internally generated
 - (d) externally focused
 - (e) properly produced
- (vii) The Institute of Management Accountants (IMA) has developed ethical standards for management accountants. What four categories has the IMA classified these standards into?
- (a) reliability, objectivity, commitment, and competence
 - (b) objectivity, integrity, commitment, and confidentiality
 - (c) observation, integrity, closure, and competence
 - (d) competence, objectivity, integrity, and confidentiality**
 - (e) reliability, understandability, flexibility, and integrity
- (viii) A formula such as net income available to common stockholders divided by common equity is used to calculate
- (a) returns on earnings power
 - (b) returns on investment
 - (c) returns on common equity
 - (d) returns on interest.
 - (e) returns on Asset
- (ix) Which of the following types of firms likely would have a high proportion of variable costs in its cost structure?
- (a) public utility.
 - (b) airline.
 - (c) fast food outlet.
 - (d) architectural firm
 - (e) law firm
- (x) Assume that a managerial accountant strives to fully disclose all relevant information that could be expected to influence a user's understanding of a monthly sales report. In so doing, the accountant will have applied the ethical standard of:
- (a) objectivity.
 - (b) confidentiality.
 - (c) integrity.
 - (d) efficiency.
 - (e) unified behavior.

QUESTION 2**[5 MARKS]**

There are five (5) statements given under the question. Identify the statements as True or False. If the statement is false, rewrite the statement on the answer script to make it 'True'. Reasoning is NOT required. Follow the example given below in providing your answer.

Example:

(a) ICMAB stands for the Industrial Cost Management and Accounting of Bangladesh.

Answer:

(a) False. ICMAB stands for the Institute of Cost and Management Accountants of Bangladesh.

Note:

- You will not get any mark if you simply rewrite as ICMAB *does not* stand for the Industrial Cost Management Accountants of Bangladesh.
- If the statement is true, you need NOT to rewrite the statement rather only mention that the statement is *True*.

- (a) The amount that a manufacturing company could earn by renting unused portions of its warehouse is an example of an opportunity cost.
- (b) If the finished goods inventory increases between the beginning and the end of a period, then the cost of goods manufactured is smaller than the cost of goods sold.
- (c) Depreciation on equipment a company uses in its selling and administrative activities would be classified as a product cost.
- (d) Committed fixed costs cannot be reduced to zero without seriously impairing the company's long term goals.
- (e) All future costs are relevant cost.

QUESTION 3**[5 MARKS]**

Match the items of column A with the most suitable items of column B. Match only one item of column A with one item of column B. Write your answer on the answer script. Follow the example given below in providing your answer.

Example:

Column A	Column B
1. ICMAB	(a) Professional accountancy body (b) University

Answer: 1 (a)**Column A****Column B**

- | | |
|--|--|
| (1) Product costs eventually affect | (a) investment in production facilities |
| (2) Example of a committed fixed expense | (b) both the balance sheet and the income statement |
| (3) A process costing system uses | (c) employee training costs |
| (4) In describing the cost equation, $Y = a + bX$, "a" is | (d) a separate Work in Process account for each processing department |
| (5) Zero-based budgeting | (e) a separate Work in Process account for each type of product produced |
| | (f) the balance sheet |
| | (g) the variable cost per unit of activity. |
| | (h) the total fixed costs. |
| | (i) is used when no increases in budgets are allowed |
| | (j) requires that all programs be justified and prioritized. |

= END OF SECTION A =

SECTION B [80 MARKS]

THERE ARE 4 (FOUR) QUESTIONS IN THIS SECTION. ANSWER ALL THE QUESTIONS IN THE ANSWER SCRIPT. SHOW ALL RELEVANT COMPUTATION.

QUESTION 4

[(6+8+6) = 20 MARKS]

- (a) SB Limited has just the business and plans to produce a product, which will sell for Tk. 10 per unit. Preliminary market survey shows that demand will be less than 10,000 units per year, but it is not clear how much less.

SB has the Choice of buying one of two machines, each of which has a capacity of producing 10,000 units per year. Machine A would have a fixed cost of Tk. 30,000 per annum and would yield a profit of Tk.30,000 per year if sales were 10,000 units.

Machine B has a fixed cost of Tk. 16,000 per year and would yield a profit of Tk. 24,000 per year at sales of 10,000 units. Variable costs behave linearly for both machines.

Required:

- (i) Break-even Sales for each machine
(ii) The sales level where both the machines are equally profitable
- (b) Mithun supplier company is considering the introduction of a new product in the market. To determine a target selling price, the company has gathered the following information:

No. of units to be produced and sold 50,000 units per annum.

The estimates for the products are:

Items	Per units
Direct Material	Tk. 40
Direct labor	Tk. 20
Variable manufacturing overhead	Tk. 12

Fixed manufacturing overhead Tk. 50,000 per year.

Variable selling & Administration cost Tk. 7 per unit.

Fixed selling & Administration cost Tk. 40,000 per year.

Estimated investment requested by the company Tk. 1,20,000

Desired ROI 12%

The company uses absorption costing approach to cost plus pricing.

Required:

- (i) Compute the target sales value the company will have to use to achieve the desired ROI.
(ii) Compute the target selling price per unit.
- (c) LT Ltd of Gazipur, Bangladesh is interested in cutting the amount of time between when a customer places an order and when the order is completed. For the first quarter of the year 2021 the following data were reported:

Inspection time	15 days
Process time	28 days
wait time	16 days
Queue time	4days
Move time	7 days

Required:

- (i) Compute the throughput time or velocity of production.
(ii) Compute the Manufacturing Cycle Efficiency (MCE) for the quarter.
(iii) What percentage of the throughput time was spent in no value added activities?
(iv) If by use of JIT all queue time can be eliminated in production, what will be the new MCE?

QUESTION 5

[Marks : 5+(5+5+3+2) = 20]

- (a) Explain what do you know about skimming pricing, penetration pricing, and target costing?
- (b) SPAA Engineering Company manufactures food blending machinery according to customer specifications. The company operated at 75 percent capacity during the year just ended. The following information is available about the company’s financial data (Tk. in thousands):

Sales	Tk.25,000
Less Sales commissions (10%)	<u>2,500</u>
Net sales	<u>22,500</u>
Expenses:	
Direct materials	Tk.6,000
Direct labor	7,500
Manufacturing overhead - variable	2,250
Manufacturing overhead - fixed	1,500
Corporate administration - fixed	<u>750</u>
Total costs	<u>Tk. 18,000</u>
Income before taxes	<u>Tk.4,500</u>
Income taxes (40%)	<u>1,800</u>
Net Income	<u>2,700</u>

SPAA, which expects continued operations at 75 percent of capacity, recently submitted a bid of Tk.165,000 on some custom-designed machinery for Apex Foods. SPAA used a pricing formula in delivering the bid amount based on last year’s operating results. The formula is as follows:

Estimated direct materials.....	Tk.29,200
Estimated direct labor	56,000
Estimated manufacturing overhead at 50% of direct labor	28,000
Estimated corporate overhead at 10% of direct labor	<u>5,600</u>
Estimated total costs excluding sales commissions	<u>Tk. 118,800</u>
Add 25% for profit and taxes	<u>Tk.29,700</u>
Suggested price (with profit) before sales commissions	<u>Tk,148,500</u>
Suggested total price : Tk.148,500/ 0.9 to adjust for 10% commission	<u>Tk.165,000</u>

Required :

- (i) Calculate the impact the order would have on SPAA’s net income if the Tk.165,000 bid were accepted by Apex Foods.
- (ii) Assume that Apex has rejected SPAA’s bid but has stated it is willing to pay Tk127,000 for the machinery. Should SPAA manufacture the machinery for the counteroffer of Tk.127,000?. Explain your answer and show calculations.
- (iii) At what bid price will SPAA break even on the order?
- (iv) Explain how the profit performance in the coming year would be affected if SPAA accepted all of its work at prices similar to Apex’s Tk.127,000 counteroffer described in requirement(ii).

QUESTION 6

[Marks : 3+2+(6+5+4) =20]

- (a) How does the existence of excess production capacity affect the decision to accept or reject a special order ?
- (b) What behavioral tendency do people often exhibit with regard to opportunity costs ?
- (c) The Star Electronics is a retailer of radios, stereos, and televisions. The store carries two portable sound systems that have radios, tape players, and speakers. System A, of slightly higher quality than system B, costs Tk.20 more. With rare exceptions, the store also sells a headset when a system is sold. The headset can be used with either system. Variable costing income statements for the three products follow:

	System A	System B	Headset
Sales	Tk.45, 000	Tk.32, 000	Tk.8, 000
Less Variable expenses	20,000	25,000	3,000
Contribution margin	Tk.25, 000	Tk.7, 000	Tk.5, 000
Less Fixed costs	10,000	18,000	3,000
Operating income	Tk.15, 000	Tk. (11,000)	Tk.2, 000

Fixed costs include common fixed costs totaling Tk.18, 000, allocated to each product in proportion to its revenues. The owner of the store is concerned about the profit performance of system B and is considering dropping it. If the product is dropped, sales of system A will increased by 25%, and sales of headsets will dropped by 20%.

Required

- (i) Prepared segmented income statements for the three products using a better format.
- (ii) Prepare segmented income statements for system A and the headsets assuming that system B be dropped. Should B be dropped?
- (iii) Suppose that a third system, system C, with a similar quality to system B, could be acquired. Assume that with C the sales of A would remain unchanged. However, C would produce only 80% of the revenues of B, and sales of the headsets would drop by 10%. The contribution margin ratio of C is 50%, and its direct fixed costs would be identical to those of B. Should system be dropped and replaced with system C?

QUESTION 7

[Marks : 4+(10+4+2) = 20]

- (a) What are the differences and similarities between quality and productivity? Explain.
- (b) During 2018 and 2019, MN Company reported sales of Tk. 6,000,000 for each year. MN listed the following quality costs for the past two years. Assume that all changes in the quality costs are due to a quality-improvement program.

	2018	2019
Design review	Tk.150, 000	Tk.300, 000
Recalls	200,000	100,000
Reinspection	100, 000	50, 000
Material inspection	60,000	40,000
Quality training	40,000	100, 000
Process acceptance	-	50,000
Scrap	145,000	35,000
Lost sales	300,000	200,000
Product inspection	50,000	30,000
Complaint adjustment	155,000	95,000
Total	Tk.1200,000	Tk.1000,000

Required

- (i) Prepare a quality cost report for 2018 and 2019.
- (ii) How much were the additional resources invested in prevention and appraisal activities from one year to the next? What return did this investment generate?
- (iii) The management of MN believes that it is possible to reduce quality costs to 2.5 percent of sales. Show how much additional profit is available through quality improvements?

= END OF SECTION B =