

**CMA DECEMBER, 2020 EXAMINATION
PROFESSIONAL LEVEL-II
SUBJECT: 202. MANAGEMENT ACCOUNTING**

Time: Three hours

Full Marks: 100

- ❖ All questions are to be attempted.
- ❖ Show computations, where necessary.
- ❖ Answer must be brief, relevant, neat and clean.
- ❖ Start answering each question from a fresh sheet.

Q. No. 1

- (a) Discuss the following statement: "Full cost can be viewed as a floor of protection. If a firm always sets its prices above full cost, it will never have to worry about operating at a loss."
- (b) Earth Inc. manufactures two models of high- pressure steam valves the XR7 model and the ZD5 model. Data regarding the two products follow:

Product	Direct Labor-Hours	Annual Production	Total Direct Labor – Hours
XR7	0.2 DLHs per unit	20,000 units	4,000 DLHs
ZD5	0.4 DLHs per unit	40,000 units	16,000 DLHs
			20,000 DLHs

Additional information about the company follows:

- (1) Product XR7 requires \$35 in direct materials per unit and product ZD5 requires \$25
- (2) The direct labor rate is \$20 per hour
- (3) The company has always used direct labor hours as the base for applying manufacturing overhead cost to products. Manufacturing overhead total \$1480,000 per year.
- (4) Product XR7 is more complex to manufacture than product ZD5 and requires the use of a typical milling machine.
- (5) Because of the special work required in (d) above the company is considering the use of activity based costing to apply overhead cost to products. The activity cost pool have been identified and the first stage allocations have been completed. Data considering these activity cost Pools appear below:

Activity Cost pool	Activity Measure	Total Cost	Total Activity		
			XR7	ZD5	Total
Machine setups	Number of setups	\$ 180,000	150	100	250
Special milling	Machine-hours	300,000	1,000	0	1,000
General factory	Direct labor-hours	1000,000	4,000	16,000	20,000
		\$1480,000			

Required:

- (a) Assume that the company continues to use direct labor hours as the base for applying overhead cost to products.
 - (i) Compute the predetermined overhead rate.
 - (ii) Determine the unit product cost of each product.
- (b) Assume that the company decides to use activity based costing to apply overhead cost to products.
 - (i) Compute the activity rate for each activity cost cool pool. Also compute the amount of overhead cost that would be applied to each product.
 - (ii) Determine the unit product cost of each product.
- (c) Explain why overhead cost shifted from the high-volume product to the low-volume products under activity based costing.

[Marks: 4+(2.5+2.5)+(2.5+2.5)+6 = 20]

Q. No. 2

- (a) What is idle capacity? Why it arises? How idle capacity cost to be calculated? How this cost can be treated in product costing?
- (b) The University of Boyne offers an extensive continuing education program in many cities throughout the state. For the convenience of its faculty and administrative staff and to save costs, the university employs a supervisor to operate a motor pool. The motor pool operated with 20 vehicles until February, when an additional automobile was acquired. The motor Pool furnishes gasoline, oil and other supplies for its automobiles. A mechanic does routine maintenance and minor repairs. Major repairs are done at a nearby commercial garage.

Each year, the supervisor prepares an operating budget, which informs the university administration of the funds needed for operating the pool. Depreciation (Straight-line) on the automobiles is recorded in the budget in order to determine the cost per mile.

The following schedule presents the annual budget approved by the university, with March's actual costs compared to one twelfth of the annual budget:

**University Motor Pool
 Budget Report for March**

	<u>Annual</u> <u>Budget</u>	<u>One-Month</u> <u>Budget</u>	<u>March</u> <u>Actual</u>	<u>(Over)</u> <u>Under</u>
Gasoline.....	\$ 52,500	\$ 4,375	\$ 5,323	\$ (948)
Oil, Minor repairs, parts and supplies.....	3,600	300	380	(80)
Outside repairs.....	2,700	225	50	175
Insurance.....	6,000	500	525	(25)
Salaries and benefits.....	30,000	2,500	2,500	-
Depreciation.....	<u>26,400</u>	<u>2,200</u>	<u>2,310</u>	<u>(110)</u>
	<u>\$121,200</u>	<u>\$10,100</u>	<u>\$11,088</u>	<u>\$(988)</u>
Total Miles.....	600,000	50,000	63,000	
Cost per mile.....	\$.2020	\$.2020	\$.1760	
Number of automobiles.....	20	20	21	

The annual budget was constructed upon these assumptions:

- (a) 20 automobiles in the pool.
- (b) 30,000 miles per year per automobile.
- (c) 16 miles per gallon per automobile.
- (d) \$ 1.40 per gallon of gasoline.
- (e) \$.006 per mile for oil, minor repairs, parts, and supplies.
- (f) \$ 135 per automobile for outside repairs.

The supervisor is unhappy with the monthly report comparing budget and actual costs for March, claiming it presents an unfair picture of performance. A previous employer used flexible budgeting to compare actual costs to budgeted amounts.

Required:

- (i) Prepare a report showing budgeted amounts, actual costs, and monthly variations for March, using flexible budget techniques. (Round off computations to for decimal places.)
- (ii) Explain the basis of the budget figure for outside repairs.

[Marks: 5+(10+5) = 20]

CMA DECEMBER, 2020 EXAMINATION
PROFESSIONAL LEVEL-II
SUBJECT: 202. MANAGEMENT ACCOUNTING

Q. No. 3

- (a) What situations give rise to idle capacity costs? How and Why should such costs be accounted for?
- (b) Samir Telecom Limited of Dhaka has organized a new division to manufacture and sell cellular telephones. Monthly costs associated with the cellular phones and with the plant in which the cellular phones are manufactured are shown below:

Manufacturing costs:

Variable costs per unit:

Direct materials Tk. 48

Variable manufacturing overhead 2

Fixed manufacturing overhead cost (total) Tk. 360,000

Selling and administrative costs:

Variable 12% of sales

Fixed (total) Tk. 470,000

Samir Telecom regards all of its workers as full-time employees and the company has a long-standing no layoff policy. Furthermore, production is highly automated. Accordingly, the company has included in its fixed manufacturing overhead all of its labor costs. The cellular phones sell for Tk. 150 each. During September, the first month of operations, the following activity was recorded:

Units produced 12,000

Unit sold 10,000

Required:

- (1) Compute the unit product cost under:
 - (i) Absorption costing.
 - (ii) Variable costing.
- (2) Prepare an income statement for the month using absorption costing.
- (3) Prepare an income statement for the month using variable costing.
- (4) Assume that the company must obtain additional financing in order to continue operations. As a member of top management, would you prefer to take the statement in (2) above or in (3) above with you as you meet with a group of prospective investors?
- (5) Reconcile the net income figures in (2) and (3) above for September under absorption costing and variable costing.

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

Q. No. 4

- (a) Explain shortly how cost and management accounting contribute to the national economy?
- (b) How you will explain "Responsibility Accounting"? Briefly discuss how responsibility is ascertained by accounting analysis?
- (c) The Management Accountant plays an important role in the modern business environment and his/her activities may be categorized as providing information under the headings of planning, control and decision making.

Think, you have just been appointed to a new role as a Management Accountant in Desh Bondhu Ltd, a large engineering company producing a wide range of parts for the automobile industry. This new role has been created following a majority decision of the Board of Directors based on the advice of the company's auditors. However, Mr. Sakil-MBA (major in marketing) having long experience also joined as a Managing Director does not understand why the company needs another accountant as there is already a financial Accountant employed on a full-time basis. He voted against the creation of the new position and considers the cost of your remuneration to be an unwelcome burden which will only serve to reduce the company's reported profits. According to his, the equation $Y=a-bx$ which management accountant always uses are not relevant in modern day business environment.

CMA DECEMBER, 2020 EXAMINATION
 PROFESSIONAL LEVEL-II
 SUBJECT: 202. MANAGEMENT ACCOUNTING

Q. No. 4(cont'd...)

You are aware of the strong opinion of the Managing Director and as your first task, you decide to attempt to convince him of the importance of Management Accounting in the modern business environment and also suggest some ways that you can ensure your future role in Desh Bondhu Ltd, is financially viable.

Required:

Prepare a Memorandum to the Managing Director in which you address his concern using the following guidelines:

- (i) Distinguish clearly between FINANCIAL ACCOUNTING and MANAGEMENT ACCOUNTING under any FOUR different headings.
- (ii) For each of the THREE key headings of planning, control and decision making; outline one Management Accounting technique and how it would lead to stronger commercial success for the company.
- (iii) Identify any THREE qualitative (non-financial) issues that you should consider as a Management Accountant when providing information for decision making in Desh Bondhu Ltd,

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

Q. No. 5

- (a) What do you understand by Operating Costs? Describe its essential features and state where it can be usefully implemented.
- (b) "I thought that new, automated plant was supposed to make us more efficient and therefore more profitable," exclaimed Marla Warner, President of Visic Company." Just look at these monthly income statements for the second quarter. Sales have risen steadily month by month. but income is going in the opposite direction, and even show a loss for June! Can someone explain what's happening? The statements to which Ms. Warner was referring are given below;

VISIC COMPANY
 Monthly Income Statements
 For the Second Quarter

	April	May	June
Sales (at \$25)	\$ 1,500,000	\$1,625,000	\$ 1,750,000
Less cost of goods sold:			
Beginning Inventory:	70,000	280,000	350,000
Cost applied to production:			
Variable manufacturing costs (at \$6 per unit)	450,000	420,000	300,000
Fixed manufacturing overhead	600,000	560,000	400,000
Cost of goods manufactured	1,050,000	980,000	700,000
Goods available for sale	1,120,000	1,260,000	1,050,000
less ending inventory	280,000	350,000	70,000
Cost of goods sold	840,000	910,000	980,000
Underapplied (or overapplied) overhead cost	(40,000)	-	160,00
Adjusted cost of goods sold	800,000	910,000	1,140,000
Gross margin	700,000	715,000	610,000
Less selling and administrative expenses	620,000	665,000	710,000
Net operating income (loss)	\$ 80,000	\$ 50,000	\$ (100,000)

"Fixed costs associated with the new plant are very high," replied Brian Hauber, the controller. "We are just following good absorption costing, as we have for years,"

CMA DECEMBER, 2020 EXAMINATION
PROFESSIONAL LEVEL-II
SUBJECT: 202. MANAGEMENT ACCOUNTING

Q. No. 5(cont'd...)

“May be the costing method is the problem.” responded Teri Carlyle, the financial vice president, “A management development seminar I just attended suggested that the contribution approach, with variable costing, is the best way to report profit data to management.”

Production and sales data for the second quarter follow:

	April	May	June
Production in units	75,000	70,000	50,000
Sales in units	60,000	65,000	70,000

Additional information about the company’s operations is given below:

- (1) Five thousand units were in inventory on April 1.
- (2) Fixed manufacturing overhead costs total \$ 1,680,000 per quarter and are incurred evenly throughout the quarter. The fixed manufacturing overhead cost is applied to units of product on the basis of a budgeted production volume of 70,000 units per month.
- (3) Variable selling and administrative expenses are \$9 per unit sold. The remainder of the selling and administrative expenses on the statements above are fixed.
- (4) The Company uses a FIFO inventory flow assumption. Work in Process inventories are insignificant and can be ignored.

“We had to build inventory early in the year in anticipation of a strike in June, said Mr. Hauber. “Since the union settled without a strike, we then had to cut back production in June in order to work off the excess inventories, The income statements you have are completely accurate.

Required:

- (i) Prepare an income statement for each month using the contribution approach with variable costing.
- (ii) Reconcile the variable costing and absorption costing net operating income (loss) figures for each month. Show all computations and show how you have derived each figure used in your reconciliation.
- (iii) Assume that the company had decided to introduce JIT inventory method at the beginning of June, how many units have been produced during June under JIT?

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

= THE END =