



THE INSTITUTE OF COST AND MANAGEMENT ACCOUNTANTS OF BANGLADESH
CMA JUNE, 2016 EXAMINATION
PROFESSIONAL LEVEL-II
SUBJECT : 202. MANAGEMENT ACCOUNTING.

Reading Time: 15 minutes

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) What is a budget? What is budgetary control? Discuss some of the major benefits to be gained from budgeting.
- b) P Company manufactures and sells a single product called Rets. Operating at capacity, the company can produce and sell 30,000 Rets per year. Costs associated with this level of production and sales are given below:

	<u>Unit</u>	<u>Total</u>
Direct materials	Tk. 15	Tk. 450,000
Direct labor	8	240,000
Variable manufacturing overhead	3	90,000
Fixed manufacturing overhead	9	270,000
Variable selling expense	4	120,000
Fixed selling expense	<u>6</u>	<u>180,000</u>
Total cost	<u>Tk. 45</u>	<u>Tk. 1,350,000</u>

The Rets normally sell for Tk. 50 each. Fixed manufacturing overhead is constant at Tk. 270,000 per year within the range of 25,000 through 30,000 Rets per year.

Required:

- (i) Assume that due to a recession, P Company expects to sell only 25,000 Rets through regular channels next year. A large retail chain has offered to purchase 5,000 Rets if P is willing to accept a 16% discount off the regular price. There would be no sales commissions on this order; thus, variable selling expenses would be slashed by 75%. However, P Company would have to purchase a special machine to engrave the retail chain's name on the 5,000 units. This machine would cost Tk. 10,000. P Company has no assurance that the retail chain will purchase additional units in the future. Determine the impact on profits next year if this special order is accepted.
- (ii) Refer to the original data. Assume again that P Company expects to sell only 25,000 Rets through regular channels next year. The BD. Army would like to make a one-time-only purchase of 5,000 Rets. The Army would pay a fixed fee of Tk. 1.80 per Ret, and it would reimburse P Company for all costs of production (variable and fixed) associated with the units. Since the army would pick up the Rets with its own trucks, there would be no variable selling expenses associated with this order. If P Company accepts the order, by how much will profits increase or decrease for the year?
- (iii) Assume the same situation as that described in (2) above, except that the company expects to sell 30,000 Rets through regular channels next year. Thus, accepting the BD. Army's order would require giving up regular sales of 5,000 Rets. If the Army's order is accepted, by how much will profits increase or decrease from what they would be if the 5,000 Rets were sold through regular channels?

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

Q. No. 2.

- (a) What is the basics of Cost-volume profit analysis? Can you explain in brief the contribution margin rates?
- (b) You work as a Management Accountant for a large Group of companies which manufactures battery. It has been decided to introduce zero based budgeting in place of the more traditional incremental budgeting. The director of the research and development department has never heard of zero based budgeting.

Required:

Write a report to the director of the research and development department which explains the following.

- (i) How zero based budgeting (ZBB) techniques differ from traditional budgeting?
- (ii) How ZBB may assist in planning and controlling discretionary costs?
- (c) NZU Ltd. manufactures three joint products (M, N and P) from the same common process. In a typical month, output from the common process consists of 25,000 litres of M, 15,000 litres of N and 45,000 litres of P, in fixed proportions. The monthly costs of the common process are Tk. 480,000. Each one of the products can be sold immediately after the common process, but each one of them can be further processed individually before being sold. The following further processing costs and selling prices per litre are expected:

Product	Selling price after common process	Selling price after further processing	Further variable processing cost
	Taka/Litre	Taka/Litre	Taka/Litre
M	6.25	8.40	1.75
N	5.20	6.45	0.95
P	6.80	7.45	0.85

Required:

- (i) Evaluate the viability of the common process, and
- (ii) Determine the optimal processing plan for each of the three products, showing appropriate calculations.

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

Q. No. 3.

“Wonderful! Not only did our salespeople do a good job in meeting the sales budget this year, but our production people did a good job in controlling costs as well,” said Kim Clark, president of Martell Company. “Our Tk. 18,300 overall manufacturing cost variance is only 1.2% of the Tk. 1,536,000 standard cost of products made during the year. That’s well within the 3% parameter set by management for acceptable variances. It looks like everyone will be in line for a bonus this year.”

The company produces and sells a single product. The standard cost card for the product follows:

Standard Cost Card—per Unit of Product

Direct materials, 2 feet at Tk. 8.45 per foot	Tk. 16.90
Direct labor, 1.4 direct labor hours at Tk. 16 per direct labor-hour	22.40
Variable overhead, 1.4 direct labor-hours at Tk. 2.50 per direct labor-hour	3.50
Fixed overhead, 1.4 direct labor-hours at Tk. 6 per direct labor-hour	<u>8.40</u>
Standard cost per unit	<u>Tk. 51.20</u>

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Q. No. 3.(cont'd.....)

The following additional information is available for the year just completed:

- (a) The company manufactured 30,000 units of product during the year.
- (b) A total of 64,000 feet of material was purchased during the year at a cost of Tk. 8.55 per foot. All of this material was used to manufacture the 30,000 units. There were no beginning or ending inventories for the year.
- (c) The company worked 43,500 direct labor-hours during the year at a direct labor cost of Tk. 15.80 per hour.
- (d) Overhead is applied to products on the basis of standard direct labor-hours. Data relating to manufacturing overhead costs follow:

Denominator activity level (direct labor-hours)	35,000
Budgeted fixed overhead costs (from the overhead flexible budget)..	Tk. 210,000
Actual variable overhead costs incurred	Tk. 108,000
Actual fixed overhead costs incurred	Tk. 211,800

Required:

- (1) Compute the direct materials price and quantity variances for the year.
- (2) Compute the direct labor rate and efficiency variances for the year.
- (3) For manufacturing overhead compute:
 - (i) The variable overhead spending and efficiency variances for the year.
 - (ii) The fixed overhead budget and volume variances for the year.
- (4) Total the variances you have computed, and compare the net amount with the Tk. 18,300 mentioned by the president. Do you agree that bonuses should be given to everyone for good cost control during the year? Explain.

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

Q. No. 4.

- (a) Johnson, Inc.'s has provided the following information regarding June's results.

	<u>Revenue and Cost Formula</u>	<u>Actual Results</u>
Revenue	Tk. 13.00/unit	Tk. 28,000
Conversion costs	Tk. 3.25/unit	7,000
Salaries	Tk. 8,000	7,600
Utilities	Tk. 600 + Tk. 0.50/unit	1,550
Rent	Tk. 5,000	5,000
Miscellaneous	Tk. 800 + Tk. 0.80/unit	2,500

Required:

- (i) Prepare the company's planning budget assuming that 2,000 units were manufactured.
- (ii) Assume that 2,100 units were actually manufactured. Prepare the flexible budget for this level of activity.
- (iii) Prepare a flexible budget performance report for the company.
- (b) Write short notes on the following:
 - (i) Just-in-time (JIT);
 - (ii) Total quality management (TQM);
 - (iii) Process Reengineering;
 - (iv) The theory of constraints (TOC).

[Marks: 2+4+6+(4x2) = 20]

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Q. No. 5.

a) The following information for KK's Framing Supply is given for March:

	<u>Taka</u>
Sales	360,000
Fixed manufacturing costs	35,000
Fixed marketing and administrative costs	25,000
Total fixed costs	60,000
Total variable costs	240,000
Unit price	90
Unit variable manufacturing cost	55
Unit variable marketing cost	5

Compute the following:

- i) Monthly operating profit when sales total Tk. 360,000 (as above).
 - ii) Break-even number in units.
 - iii) Number of units sold that would produce an operating profit of Tk. 120,000.
 - iv) Sales amount (taka) required to earn an operating profit of Tk. 20,000.
 - v) Number of units sold that would produce an operating profit of 20% of sales.
- b) High Desert Campgrounds (HDC) rents spaces for recreational vehicles (RVs) by the day. HDC charges Tk. 15 per day for a space. The variable costs (including cleaning, maintenance, and supplies) are Tk. 7 per day. The fixed costs of HDC are Tk. 60,000 per year. HDC is subject to a tax rate of 35 percent on its income. If a "unit" is one space rented for one day, how many units does HDC have to rent annually to earn Tk. 48,750 after taxes?
- c) Suppose HDC rents spaces for both RVs and tent camping. The price and cost characteristics for each are as follows (one unit is a tent or RV space rented for one day):

	Price per Unit	Variable Cost <u>per Unit</u>	Units Rented <u>per Year</u>
Tent space	Tk. 6	Tk. 3	6,000
RV space	15	7	9,000

The fixed costs of HDC are Tk. 60,000 annually. Assuming the mix of tent and RV spaces is the same as the current mix, how many tent spaces and how many RV spaces must be rented annually for HDC to break even?

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

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