



THE INSTITUTE OF COST AND MANAGEMENT ACCOUNTANTS OF BANGLADESH
CMA JUNE, 2016 EXAMINATION
PROFESSIONAL LEVEL-I
SUBJECT : 102. COST 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.

The Kim Company is a furniture manufacturer with two departments: molding and finishing. The company uses the weighted-average method of process costing. In August, the following data were recorded for the finishing department:

Units of beginning work in process inventory	12,500
Percentage completion of beginning work in process units	25%
Cost of direct materials in beginning work in process	Tk. 0
Units started	87,500
Units completed	62,500
Units in ending inventory	25,000
Percentage completion of ending work in process units	95%
Spoiled units	12,500
Total costs added during current period:	
Direct materials	Tk. 819,000
Direct manufacturing labor	Tk. 794,500
Manufacturing overhead	Tk. 770,000
Work in process, beginning:	
Transferred-in costs	Tk. 103,625
Conversion costs	Tk. 52,500
Cost of units transferred in during current period	Tk. 809,375

Conversion costs are added evenly during the process. Direct material costs are added when production is 90% complete. The inspection point is at the 80% stage of production. Normal spoilage is 10% of all good units that pass inspection. Spoiled units are disposed of at zero net disposal value.

For August, summarize total costs to account for and assign these costs to units completed and transferred out (including normal spoilage), to abnormal spoilage, and to units in ending work in process.

[Marks: 20]

Q. No. 2.

- (a) What are the factors that influence the application of activity based costing?
- (b) Rifat leather Ltd. manufactures four products- namely A, B, C and D-using the same plant and processes. The following information relates to a production period:

Product	Volume	Material cost per unit	Direct labor per unit	Machine time per unit	Labor cost per unit
A	500	Tk. 50	½ hour	¼ hour	Tk. 30
B	5,000	50	½ hour	¼ hour	30
C	600	160	2 hours	1 hour	120
D	7,000	170	1½ hours	1½ hours	90

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Q. No. 2.(cont'd.....)

Total production overheads recorded by the cost accounting system are analyzed under the following headings:

Factory overhead applicable to machine-oriented activity is Tk. 37,424.

Set-up costs are Tk. 4,355.

Cost of ordering materials is Tk. 1,920.

Handling materials is Tk. 7,580

Administration for spare parts is Tk. 8,600.

Investigation into the production overhead activities for the period reveals the following totals:

Product	Number of set-ups	Number of materials orders	Number of times materials was handled	Number of spares parts
A	1	1	2	2
B	5	4	11	5
C	2	1	3	1
D	9	4	11	4

Required:

- (i) Determine overhead costs absorption rate for each products using traditional method (using machine hour).
- (ii) Assume that the company has decided to use activity-based costing to apply manufacturing overhead cost to products.
 - (a) Compute an overhead cost per unit of each product.
 - (b) Compute the unit product cost of each product.

[Marks: 3+ 5+(8+4) = 20]

Q. No. 3.

- (a) Assume that Mr. Abu Baker, an assembler of a factory, worked a total of 45 hours in a single week on job #453. Mr. Baker's weekly rate of pay is Tk.48 per hour for any hours worked up to 36 hours as per his union contract, and Tk. 72 per hour for any hours worked in excess of 36 hours per week.

Required:

Calculate Mr. Baker's total wages for the week and Give journal entries to record Mr. Baker's total wages for the week assuming that:

- (i) the overtime premium was due to random job scheduling
- (ii) the overtime results from the requirements of a specific job and not from random scheduling
- (iii) the overtime resulted from negligence or poor workmanship on the part of Mr. Baker.
- (b) An employee, earning Tk. 2,500 per week, is entitled to a 2 week paid vacation, or Tk. 5,000 yearly. Give the journal entry to record the weekly labor cost to production.
- (c) A worker is paid Tk. 8,000 per month in addition to dearness allowance of Tk.800 per month. He is entitled to bonus @ 10% on wages. Employer's contribution is 8% of wages towards contributory provident fund to which workers also contributes an equal amount. The contribution for social security tax is 1% for both employer and worker. The employer maintains a canteen where subsidized tea and lunch are provided to workers and monthly subsidy of Tk. 40,000 is provided to the canteen. The total number of employees who take advantage of the canteen is 400. Normal idle time amounts to 20%. The worker is entitled to 15 days' earned leave during the year. The number of working days in a year should be taken to be 300 of 8 hours each.

Required: Find out the labor cost per hour.

[Marks: 2+(3×2) + (3+9) = 20]

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Q. No. 4.

New Rise, Inc., produces porcelain figurines. The production is semi-automated where the figurine is molded almost entirely by operator-less machines and then individually hand-painted. The overhead in the molding department is allocated based on machine hours and the overhead in the painting department is allocated based on direct manufacturing labor-hours. New Rise, Inc., uses a normal-costing system and reported actual overhead for the month of May of Tk. 17,248 and Tk. 31,485 for the molding and painting departments respectively. The company reported the following information related to its inventory accounts and cost of goods sold for the month of May:

	Work in Process	Finished goods	Cost of Goods Sold
Balance before Proration	Tk. 27,720	Tk. 15,523.20	Tk. 115,156.80
Molding Dept. Overhead Allocation	Tk. 4,602	Tk. 957.00	Tk. 12,489.00
Painting Dept. Overhead Allocation	Tk. 2,306	Tk. 1,897.00	Tk. 24,982.00

1. Calculate the over or under allocated overhead for each of the Molding and Painting departments for May.
2. Calculate the ending balances in work in process, finished goods, and cost of goods sold if the under or over allocated overhead amounts in each department are treated as follows:
 - (a) Written off to cost of goods sold
 - (b) Prorated based on the ending balance (before proration) in each of the three accounts
 - (c) Prorated based on the overhead allocated in May (before proration) in the ending balances in each of the three accounts
3. Which method would you choose? Explain.

[Marks: (4+12+4) = 20]

Q. No. 5.

- (a) The following information is available regarding the labour costs in a factory department for a week:

	Direct Personnel	Indirect Personnel
Payroll Hours:		
Production	432	117
Training	24	-
Idle Time	32	4
Total	488	121
Rates Per Hour:		
Basic	Tk. 7.50	Tk. 6.00
Overtime Premium	Tk. 2.50	Tk. 2.00

The following additional information is provided:

- (i) There are 12 direct personnel and 3 indirect personnel in the department.
- (ii) Group bonuses for the week, shared by all workers in the department, total Tk. 520.
- (iii) The basic wage rates apply to a normal working week of 37 hours.
- (iv) Overtime is worked in order to meet the general requirements of production.
- (v) The idle time and the time spent on training during the week are regarded as normal.
- (vi) The expected number of payroll hours of direct personnel in the week (excluding time spent on training), required to produce the output achieved, is 470.

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

Required:

- (i) Calculate the total amounts paid in the week (before share of group bonus) to direct personnel and indirect personnel respectively.
 - (ii) Determine the total amounts to be charged as direct wages and indirect wages respectively.
 - (iii) Complete the Wages Control Account in the company's separate cost accounting system, clearly indicating the account in which each corresponding entry would be made.
 - (iv) Calculate the efficiency ratio relating to the direct personnel (expressed as a percentage to one decimal place).
- (b) Comment on the following statement: "In a normal-costing system, the amounts in the Manufacturing Overhead Control account will always equal the amounts in the Manufacturing Overhead Allocated account."

[Marks: 5+4+4+2+5 =20]

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