INSTITUTE OF COST AND MANAGEMENT ACCOUNTANTS OF PAKISTAN

Spring (August) 2012 Examinations

Tuesday, the 28th August 2012

COST AND MANAGEMENT ACCOUNTING-PERFORMANCE APPRAISAL – (S-303)

STAGE-3

CMA/ CAM STREAM

Extra Reading Time:	**15 Minutes**	**Maximum Marks: 90**	**Roll No.:**	
Writing Time:	**02 Hours 45 Minutes**			

(i) Attempt all questions.
(ii) Answers must be neat, relevant and brief.
(iii) In marking the question paper, the examiners take into account clarity of exposition, logic of arguments, effective presentation, language and use of clear diagram/ chart, where appropriate.
(iv) Read the instructions printed inside the top cover of answer script CAREFULLY before attempting the paper.
(v) Use of non-programmable scientific calculators of any model is allowed.
(vi) DO NOT write your Name, Reg. No. or Roll No. anywhere inside the answer script.
(vii) Question No.1 – "Multiple Choice Question" printed separately, is an integral part of this question paper.
(viii) **Question Paper must be returned to invigilator before leaving the examination hall.**

Answer Script will be provided after lapse of 15 minutes Extra Reading Time (9:30 a.m. or 2:30 p.m. [PST] as the case may be).

Marks

Q. 2 M/s XYZ Company produces Product-A through a series of four departments. All materials are introduced in Department-1. The materials pass through remaining three departments to make finished Product-A. All inventories are valued by first-in, first-out (FIFO) method.

Following data is available relating to Department-4:

	Rs. '000'
Inventories on July 1, 2012:	
Work-in-process Department-4 (1,000 units, 25% completed)	178
Finished Goods (1,800 units @ Rs. 235 per unit)	423
Costs charged to work-in-process Department-4 during July, 2012:	
• Direct materials transferred from previous Deptt.(4,700 units @ Rs. 160 per unit)	752
• Direct Labour	255
• Factory overhead	153

During the month, 5,000 units of Product-A were completed and 4,800 units were sold. Inventories on July 31, 2012 were as follows:

Work-in-process Department-4 (50% completed)	700 units
Finished Goods	2,000 units

Required:

Calculate the following for the month of July and at the end of July 2012:

		Marks
(i)	Equivalent units of production for Department-4.	**02**
(ii)	Unit conversion cost for Department-4.	**01**
(iii)	Total and unit cost of Product-A started in a prior period and finished.	**02**
(iv)	Total and unit cost of Product-A started and finished.	**04**
(v)	Total cost of goods transferred to finished goods.	**03**
(vi)	Work-in-process inventory for Department-4.	**03**
(vii)	Cost of goods sold (indicate number of units and unit costs).	**02**
(viii)	Finished goods inventory for Department-4.	**01**

Marks

Q. 3 A company produces wide range of products. One of its products "Z" passes through three different processes. The throughput per hour of the process 1, 2 and 3 is 24, 20 and 30 units respectively. The company works for 8 hours daily, 6 days per week and 48 weeks in a year. The selling price of product "Z" is Rs. 300 per unit and its material cost is Rs. 60 per unit. Weekly conversion costs are estimated to be Rs. 48,000.

Required:

Calculate the following:

(i) Throughput Accounting (TA) Ratio per day. **05**

(ii) How much the company could spend on equipment to improve the throughput of process 2, if it wished to recover its costs in two different time periods of 2 years and 12 weeks respectively? **05**

(iii) Revised TA Ratio, if money is spent as worked out in (ii) above. **02**

Q. 4 A manufacturing company produces a standard product and operates a system of variance accounting using a fixed budget. The relevant data for the month ended July 31, 2012 is as follows:

Budgeted and standard cost data:

Budgeted sales and production for the month: 10,000 units

Standard unit cost of product:

Direct material:	A	10 kgs	@ Rs. 20 per kg
	B	5 kgs	@ Rs. 100 per kg
Direct labour		5 hours	@ Rs. 60 per hour
Fixed production overhead is absorbed at 200% of direct labour.			

Budgeted sales price has been calculated to give a profit of 20% of sales price.

Actual data for the month:

Production: 9,500 units sold at price of 10% higher than the budget price.

Direct material consumed:	A	96,000 kgs	@ Rs. 24 per kg
	B	48,000 kgs	@ Rs. 94 per kg
Direct labour		46,000 hours	@ Rs. 64 per hour
Fixed production overhead incurred			Rs. 5.8 million

Required:

(a) Workout the following for the month:

- **(i)** Standard product cost. **03**
- **(ii)** Selling price per unit. **02**
- **(iii)** Actual profit. **04**
- **(iv)** Budgeted profit. **01**

(b) Calculate the following:

- **(i)** Material price, usage and mix variances. **03**
- **(ii)** Direct labour rate and efficiency variances. **02**
- **(iii)** Fixed overhead expenditure variance. **01**
- **(iv)** Volume efficiency and capacity variances. **02**
- **(v)** Sales margin price variance and volume variance. **02**
- **(vi)** Total variances. **01**

(c) Reconcile budgeted profit with actual profit for the month of July 2012. **03**

Marks

Q. 5 A manufacturing company produces and sells a product having seasonal variations in demand. Following is the information for all the four quarters of current year and first two quarters of next year:

(i) The selling price of the product is Rs. 80 per unit. Budgeted sales units are as follows:

Year	Current Year				Next Year	
Quarters	1	2	3	4	1	2
Budgeted sales units	40,000	60,000	100,000	50,000	70,000	80,000

(ii) Sales are collected in the following pattern:

75% in the quarter of sales and balance 25% in the following quarter. Accounts receivable showed a balance of Rs. 650,000 at the end of previous year, all of which will be collected in first quarter of current year.

(iii) The company desires an ending inventory of finished units on hand at the end of each quarter equal to 30% of the budgeted sales for the next quarter. The company had 12,000 finished units at the end of previous year.

(iv) 5 kgs of raw materials are required to complete one unit of the product. The company requires an ending inventory of raw materials, at the end of each quarter, to 10% of the production needs of the following quarter. The company had 23,000 kgs of raw materials at the end of previous year.

(v) The average cost of raw material is Rs. 8 per kg. Purchase of raw materials is paid for 60% in the quarter of the purchases and balance in the following quarter. Accounts payable showed a balance of Rs. 815,000 at the end of previous year, all of which will be paid in first quarter of current year.

Required:

Prepare the following budgets and schedules for current year, showing quarterly and annual (total) figures:

(i) Sales budget and a schedule of expected cash collection. **08**

(ii) Production budget. **06**

(iii) Raw materials purchases budget and a schedule of expected cash payments for raw materials. **10**

Q. 6 **(a)** What are four different types of responsibility centres? Define them briefly. **06**

(b) Following is the data for an investment centre of Division-A of M/s. XYZ Services Company:

Average operating assets	Rs. 1,000,000
Net operating income	Rs. 200,000
Minimum required rate of return	15%

The company is considering to purchase a computerized machine to enhance the service facilities. The machine would cost Rs. 250,000 and expected to generate additional operating income of Rs. 45,000 annually

Required:

Calculate the residual income of the company before and after purchase consideration. **06**

THE END