UNIVERSITY OF COLOMBO, SRI LANKA

FACULTY OF MANAGEMENT AND FINANCE

Bachelor of Business Administration (Level I - Semester IV) Repeat Examination – November, 2018

ACT 1301- Management Accounting

Three (03) Hours

Use of calculators is permitted

Answer any Five (05) Questions

1. i. Briefly explain the term “equivalent units” and its importance to a process costing system.

(06 Marks)

ii. Describe how the Weighted Average method and the FIFO method differ in assigning costs to completed units and Closing Work in Progress (WIP).

(06 Marks)

iii. Alpha company manufactures biscuits, and the cost calculation is done using a FIFO based process costing system. No losses are identified in the process within the period. Materials are added at the beginning of the period, while conversion cost is considered to be incurred evenly throughout the process.

The following information is available for the period.

	Units
Opening Work in Progress (with 60% completion)	2,000
Total number of units completed in the period	14,000
Closing Work in Progress (with 30% completion)	3,000

Costs incurred during the process	
Material cost	Rs. 51,000
Conversion cost	Rs. 193,170

You are required to calculate the following (Show workings clearly).

a. The total number of units input during the period.

(02 Marks)

b. The value of Closing Working Progress of the period.

(06 Marks)

(Total 20 marks)

2. i. What is a management control system? List four (04) types of management control systems.

(08 Marks)

ii. Although the balanced scorecard (BSC) is a useful management accounting tool, managers face practical difficulties in implementing and continuing with it in business organizations. Comment on this statement, outlining the usefulness of the BSC and difficulties managers face in practice.

(12 Marks)

(Total 20 marks)

3. i. With a suitable example, distinguish between volume based and non-volume-based cost drivers identified in an Activity Based Costing system.

(07 Marks)

ii. Zigma PLC is a manufacturing organization with a product mix of P, Q and R. To manufacture these three products the same ingredients are used, but in different quantities. The budgeted data for the year 2019 are as follows.

	P	**Q**	**R**
Budgeted Production	1500	2500	4000
Direct Labour hours per unit	2	4	3
Machine hours per unit	3	2	3
Batch size	50	100	500

Machine setup per batch	2	3	1
Purchase orders per batch	4	4	6
Material movements per batch	10	5	4

The company absorbs overheads into product cost based on direct labour hours. The company's budgeted production overheads for 2019 is Rs.500,000.

Considering more accuracy in product cost calculation, the company has now decided to adopt Activity Based Costing and has identified the following cost drivers and cost pools.

Cost Pool	**Rs.**	**Cost Driver**
Machine maintenance	100,000	Machine hours
Machine setups	70,000	Machine setups
Purchasing	90,000	Purchase orders
Materials handling	60,000	Material movements

The remaining amount of overhead costs are caused by various reasons and activities that are mainly labour related and therefore should be attributed to products on the basis of labour hours.

You are required to;

a. Identify the production overhead cost attributed to a unit of P, Q and R according to the traditional cost calculation method of the company.

(03 Marks)

b. Calculate the production overhead cost attributed to a unit of P, Q and R using and Activity Based Costing Approach.

(10 Marks)

(Total 20 marks)

4. i. Sohan Food Manufacturers produces butter cakes, pack them into 400g weighted packs and sell to wholesalers. Considering the sales pattern of the product in the recent period, Budget Officer is in the process of preparing the Master Budget for the year 2019 (financial period is 1/1/2019 – 31/12/2019). Following are the relevant details gathered:

- Sales units per quarter during the last year were 23,000, 34,000, 30,000 and 38,000 respectively (1 unit = 1 pack).
- Unit sales are expected to increase by 20% in each quarter and the management expects to increase the price of 1 packet by 10% for the year. Current price of 1 packet is Rs.200.
- The company prefers to maintain closing finished goods inventory equal to 15% of next quarter's budgeted sales. Assume that 1st quarter opening inventory and 4th quarter closing inventory are 5,500 and 5,000 units, respectively.
- Each unit requires 300g of flour as direct material (assume this is the only direct material required). The cost of 1kg of flour is Rs.90. The company prefers to maintain closing direct material inventory equal to 12% of next quarter's need of materials. Assume that 1st quarter opening direct material inventory is 1,200 units and 4th quarter closing direct material inventory is 1,000 units.
- Each unit of production requires 0.5 direct labour hours at a cost of Rs.200 and total indirect cost per unit is Rs.60.
- Other costs identified are as follows;
  - Machine maintenance cost Rs. 7,500 (per month)
  - Depreciation per month is Rs. 4,800
  - Rent for factory Rs. 800,000 (per annum)
  - Salaries of administrative staff of factory in 1st quarter: Rs.120,000 , 2nd quarter: Rs.245,000 , 3rd quarter: Rs.260,000 and 4th quarter: Rs.320,000
  - Total selling and administrative expenses in 1st quarter: Rs.150,000 , 2nd quarter: Rs.270,000 , 3rd quarter: Rs.280,000 and 4th quarter: Rs.190,000
- Out of sales, 80% is on cash basis and the balance is on credit. Total credit sales are collected in the following quarter (assume no bad debts).
- Other income in 2nd quarter and 3rd quarter are Rs.360,000 and Rs. 400,000, respectively. Opening cash balance in 1st quarter is Rs.142,000.
- All direct material purchases are on credit basis. On average, 70% of purchases is paid in the same quarter and the balance in the following quarter.

Using the above information, you are required to prepare the following budgets for the year ending on 31.12.2019.

i. Sales Budget (02 Marks)

ii. Production Budget (04 Marks)

iii. Direct Material Purchase Budget (05 Marks)

iv. Manufacturing Overhead Budget (04 Marks)

v. Cash Budget (05 Marks)

(Total 20 marks)

5. i. Briefly explain why the correct interpretation of variances is critical in making use of variance analysis as a management control tool.

(04 Marks)

ii. Material price variance and material usage variance as two basic variances which contribute to the total production cost variance. Mention possible causes of these two variances respectively.

(08 Marks)

iii. Omega Ltd. uses a standard costing system. The details of labour for the month of November, 2018 is as follows.

Budgeted Output (Units)	15,000
Budgeted Labour Hours	60,000
Budgeted Labour Cost (Rs.)	540,000
Actual Output (Units)	14,650
Actual labour hours paid (Hours)	60,500
Productive labour hours	55,000
Actual labour cost (Rs.)	522,750

You are required to calculate;

a. The idle time of the labour force of Omega Ltd.

(04 Marks)

b. The labour efficiency variance of Omega Ltd.

(04 Marks)

(Total 20 marks)

6. i. QR Ltd produces three products: Leather bag, Wool bag and Fabric bag. Information relating to these three products is as follows.

Product	**Leather bag**	**Wool bag**	**Fabric bag**
Selling price per unit (Rs.)	900	850	600
Variable cost per unit (Rs.)	500	450	320
Expected sales mix	0.55	0.30	0.15

Total annual fixed costs are Rs. 3,247,000. Assume that the sales mix remains the same at all levels of sales.

You are required to calculate,

a. How many units of each product must be sold to break even?

(03 Marks)

b. How many units of each products must be sold to earn an annual profit of Rs.1,528,000

(03 Marks)

ii. Briefly explain the types of responsibility centers that exist in a manufacturing company.

(06 Marks)

iii. The following data relates to 'Expo' Ltd. for the month of October, 2018.

Production in units	12,000
Sales units	10,000
Selling price	Rs. 20 per unit
Variable cost	Rs. 8 per unit
Fixed production overhead cost	Rs. 48,000
Administration, selling and distribution cost	Rs. 10,000

Prepare an Income Statement under, Absorption costing and Variable costing methods.

(08 Marks)

(Total 20 marks)