

**THE INSTITUTE OF CHARTERED
ACCOUNTANTS (GHANA)**



**NOVEMBER 2011 EXAMINATIONS
(PROFESSIONAL)**

PART 3

**COST AND MANAGEMENT ACCOUNTING
(Paper 3.3)**

Attempt ALL Questions

TIME ALLOWED:

Reading & Planning - 15 Minutes

Workings - 3 Hours

QUESTION 1

- (a) Explain **four (4)** differences between job costing and process costing. (4 marks)
- (b) Walk Through Limited uses the weighted-average method in its process costing system. The following data relate to the Operations of Department 1 of the company for a recent month.

Work in process, beginning:

Units in process	100
Stage of completion with respect to materials	70%
Stage of completion with respect to conversion	90%

Costs in the beginning inventory:

Materials cost	GHS182
Conversion cost	GHS3,429
Units started into production during the month	10,000
Units completed and transferred to department 2	9,700

Costs added to production during the month:

Materials cost	GHS27,986
Conversion cost	GHS373,815

Work in process, ending:

Units in process	400
Stage of completion with respect to materials	90%
Stage of completion with respect to conversion	70%

Required:

Using the weighted-average method, determine the:

- i. Equivalent units of production for materials and conversion costs.
 - ii. Cost per equivalent unit for materials and conversion costs.
 - iii. Cost of units transferred out of the department during the month.
 - iv. Cost of ending work in process inventory in the department. (8 marks)
- (c) Deschamp Ltd has established the following standards for raw material and variable manufacturing overheads used in the production of product G13 for the just ended quarter:
Standard quantity of the material per unit output 2.3 litres,

Standard price of the material	GHS19.00 per litre
Actual material purchased	5,100 litres
Actual material used in production	GHS100,725
Standard direct labour-hours	2.5 hours per unit of G13

Standard variable manufacturing overhead rate	GHS7.70 per hour
Actual direct labour-hours worked	5,200
Actual variable manufacturing overhead incurred	GHS44,980
Actual output	2,040 units of product G13

The company's variable manufacturing overhead is applied on the basis of direct labour-hours.

Required:

Compute for Deschamp Ltd the following for the just ended month:

- i. the materials price variance
- ii. the material quantity variance
- iii. the variable overhead spending variance
- iv. the variable overhead efficiency variance (8 marks)

(Total: 20 marks)

QUESTION 2

- (a) Budgeting is an effective management tool in business decision making. Explain **four (4)** reasons why budgeting is important and state **four (4)** conditions necessary for effective budgeting.

(4 marks)

- (b) Chobo Ltd has just employed you as its Management Accountant. The following forecast information for the third quarter of the year 2010 has been provided to you:

	October	November	December
Sales expected	10,000 units	12,000 units	15000 units
Price per unit	GHS20	GHS20	GHS20
Closing stock	GHS20,000	GHS15,000	GHS25,000
Percentage of gross profit on sales	40%	40%	40%
Debtors	GHS15,000	GHS30,000	GHS15,000
Creditors	GHS25,000	GHS20,000	GHS28,000

Balances shown above are at the end of each month. In addition the desired balances projected for the end of September 2010 are shown below:

	GHS
Fixed Assets	500,000
Depreciation	120,000
Stock	18,000

Cash balances expected	80,000
Unpaid tax at the end of the month	3,000
Debtors	25,000
Creditors	30,000

The following information has also been provided for your use,

- i. The company rents part of its apartment at a monthly rental of GHS25,000 and this is expected to remain the same for the next two years.
- ii. Selling and distribution expenses are expected to be 25% of each month's sales value.
- iii. Administration and general expenses are expected to be GHS20,000 per month but this will grow upwards according to the growth in sales revenue.
- iv. Fixed asset is depreciated at 2% per month on cost.
- v. The company has agreed to purchase additional fixed asset at a cost of GHS100,000 in November.
- vi. The company has plans to borrow GHS80,000 from a friend of the director in November which is payable in a year's time without interest.
- vii. The company pays tax at 10% on net profit every month. This payment is actually done in the month after the month in which profit was declared.

You are required to prepare:

- a. The Budgeted Statement of Comprehensive Income per month in columnar form for October, November and December 2010.
(8 marks)
- b. Budgeted Statement of Financial Position in columnar form for each of the months of October, November and December. (4 marks)
- c. The Cash Budget in columnar form for the months of October, November and December 2010. (4 marks)

(Total: 20 marks)

QUESTION 3

- (a) Koboko Co Ltd is a busy processing company which has increased its output and sales from 12,800 kg in the first half of the year 2010 to 14,490 kg in the second half of 2010. Even though demand is still rising, it cannot increase its output more than another 5% from its existing labour force.

Information in the second half of 2010 for its four products were:

	A	B	C	D
	GHS	GHS	GHS	GHS
Output (kg)	3,460	5,860	3,270	1,900
Selling price (GHS per kg)	17.30	12.48	10.24	12.72
Costs (GHS per kg):				
Direct materials	7.48	5.10	5.0	6.12
Direct labour	1.84	1.20	1.0	1.65
Direct packing	0.91	0.69	0.54	0.80
Fixed overhead	<u>3.84</u>	<u>2.45</u>	<u>2.12</u>	<u>2.94</u>
	<u>14.07</u>	<u>9.44</u>	<u>8.66</u>	<u>11.51</u>

Okee Ltd has offered to supply 2,000 kg of product B at delivered price of 85% of Koboko Ltd product B selling price. The company (Koboko Ltd) will then be able to produce extra product A in place of the outsourced quantity of 2,000 kg out of product B, up to the plant's total capacity.

Required:

State whether Koboko Ltd should accept Okee Ltd's offer.

(10 marks)

- (b) A company located in the Free Zone enclave is faced with resource constraints. As a result of the technical nature of its operations, the monthly labour hours are limited to 175,000 hours. The supplier of raw materials has also been adversely affected by the recent climate change who has promised to supply 60,000 units of the materials monthly.

Details on the products are as follows:

	A	B	C	D
	GHS	GHS	GHS	GHS
Selling price per unit	60	45	50	65
Direct materials cost unit	15	10	10	15
Direct labour cost unit	20	16	16	24
Variable overhead	12	8	10	11
Direct materials required per unit	3	2	2	3
Direct labour hours required	5	4	4	6

The demand for the products are as follows

A = 10,000 units B = 6,000 units C = 12,000 units and D = 8,000 units. It is the company's policy to produce and sell at least 3,000 units of each product every month.

Required:

Advise management on the most profitable production mix and ascertain the most optimum profit expectation if the fixed costs of the month amount to GHS240,000.

(10 marks)

(Total: 20 marks)

QUESTION 4

(a) Explain the meaning of each of the underlisted measures which may be used for divisional performance measurement. Discuss the advantages and problems associated with the use of each.

i. Return on capital employed

ii. Residual income

(10 marks)

(b) Dromo Ltd is a divisional company. It has two divisions called Naa and Hewo. Naa's operations include milling and dealings in the grain market. Hewo operates a number of bakeries.

The following data relate to the year ended 30 October, 2009:

	<u>Naa</u> (GHS000)	<u>Hewo</u> (GHS000)
Sales	56,000	35,000
Gain on sale of plant	<u>-</u>	<u>1,100</u>
	<u>56,000</u>	36,100
Direct material	28,400	11,800
Director labour	9,100	8,150
Divisional overheads	5,850	4,750
Depreciation	720	990
Head office costs (allocated)	<u>480</u>	<u>310</u>
	<u>44,550</u>	<u>26,000</u>
Fixed assets (at cost less accumulated depreciation)	8,000	10,000
Stocks	6,550	2,100
Trade receivables	4,550	1,800
Cash at bank	1,700	-
Bank overdraft	-	850
Trade payables	3,200	2,350

Divisional management (DMs) are given authority to spend up to GHS25,000 on capital items as long as total spending remains within an amount provided for small projects in the annual budget. Larger projects, as well as sales and assets with book values in excess of GHS25,000 must be submitted to central management (CM).

Decision has been made that DM performance should be appraised on the basis of controllable profit, this measure would exclude depreciation and gain or losses on sales of assets, treating investment in fixed assets as a CM responsibility.

The cost of capital of Dromo Ltd is 20% per annum.

Required:

Calculate for both divisions the following three measures:

- (i) Return on capital employed
- (ii) Residual income
- (iii) Controllable profit.

(10 marks)

(Total: 20 marks)

QUESTION 5

- (a) Swaggering ladies manufactures custom jewelry. The company has in the past been using a traditional overhead allocation system based solely on direct labour hours. Sensing that this system was distorting costs and selling prices, it has decided to switch to an activity-based costing system using three activity cost pools. Information on these activity cost pools are as follows:

<u>Activity Cost Pool</u>	<u>Estimated Activity</u>	<u>Estimated Overhead Costs (GHS)</u>
Labour related	8,000 direct labour hours	40,000
Machine related	12,500 machine hours	50,000
Quality control	800 number of inspections	12,000

During the period, Job number 309 recorded the following:

Direct materials GHS900
Direct labour – 30 hours at GHS40 per hour
Machine hours – 80
Number of inspections – 5

It is company policy to earn a profit margin of one-sixth.

Required:

- i. State any **three (3)** factors to be considered in selecting a cost driver.
- ii. Compute the cost drivers rates for Swaggering ladies for the year 2010
- iii. Determine the cost, and hence, the selling price of Job number 309 under the activity-based costing system.
- iv. Relative to the activity-based costing system, would Job number 309 have been overcosted or undercosted under the traditional system and by how much?

(16 marks)

- (b) State any **four (4)** assumptions and limitations of cost-volume-profit analysis in short term decisions making.

(4 marks)

(Total: 20 marks)