

Uva Wellassa University

Faculty of Management



Degree of Bachelor of Business Management in Entrepreneurship and Management

3rd YEAR 1st SEMESTER EXAMINATION – MARCH/APRIL 2013

EMG 311 -3 Cost and Management Accounting

Part C- Essay Questions

Part C contains three (03) questions.

Answer only two (02) questions

Marks allocated for part C is Fifty (50)

Show all workings very clearly. Assumptions (if any) should be clearly stated.

01)

- a) Assume you are the management accountant of Anuradha PLC, write a report to the board of directors of your company on how the costs can be classified based on the cost behaviour. Your report should clearly state the importance of behaviourwise cost classification. You are permitted to show sketch graphs within the body of the report.

(10 marks)

- b) Gamma PLC is a manufacturing company which having three production departments, Machining, Assembly and Finishing and two service departments Human Resource and Finance. The cost estimates of five departments for the next year are given below.

	Rs.'000
Direct Wages	
Machining	8000
Assembly	7000
Finishing	5000
Human Resource	800
Finance	1800
Other expenses	
Factory rent	1,800
Business rates	500
Electricity	200
Depreciation	8,000
Canteen subsidy	500

Other available information is as follows

Description	Machining	Assembly	Finishing	Human Resource	Finance
Number of employees	50	50	30	4	6
Floor area occupied (Sq.m)	1,600	1,200	800	50	50
No. of light points	80	60	50	5	5
Value of machinery (Rs' 000)	50,000	25,000	5,000	-	-

The expenses of the service departments are allocated to production departments as follows.

	Machining	Assembly	Finishing	Human Resource	Finance
Human Resource	35%	35%	20%	-	10%
Finance	40%	30%	15%	15%	-

i. Prepare a statement showing distribution of overhead costs to different departments.

(8 marks)

ii. Prepare a statement showing re-distribution of service departments' expenses to production departments. (use simultaneous equation method)

(7 marks)

(Total 25 marks)

02)

a) A company manufactures three products. The present net annual income from these products is as follows.

Description	Product 1 (Rs.)	Product 2 (Rs.)	Product 3 (Rs.)	Total (Rs.)
Sales revenue	150,000	160,000	105,000	415,000
Variable cost	80,000	100,000	60,000	240,000
Contribution	70,000	60,000	45,000	175,000
Fixed cost	51,000	67,500	31,500	150,000
Profit/ loss	19,000	(7,500)	13,500	25,000

The company is considering whether to cease the production of product 2 since its poor profitability. Rs.7,500 of the fixed cost is directly relevant to the production of product 2 and which would be saved if production ceased. All other fixed cost would remain the same.

i. Advice the company whether it should stop producing product 2.

(5 marks)

ii. What is the impact on total profit if the company ceases the product 2?

(8 marks)

b) A company manufactures a single product in its factory utilizing 60% of the capacity which is equivalent to 24,000 units per annum. The cost per unit is as follows.

Direct materials	Rs.110.00
Direct labour	Rs.120.00
Variable overheads	Rs.60.00

The selling price is fixed at Rs.520 per unit. Fixed production overhead cost absorption is at 150% of direct wages. Selling and administrative overheads are taken together amounting to Rs.500,000 per annum.

Since the existing product could not achieve budgeted level for two years in succession, the company is considering in introducing a new low priced product to the market. The existing machinery and equipment will be used with some marginal investment but without creating any bottlenecks for the existing product. The budgeted quantity of production and the selling price of the proposed product are 10,000 units and Rs.350 respectively. The cost estimates of the proposed product are as follows.

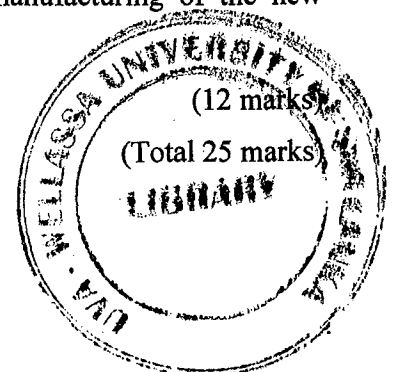
Direct material	Rs.60.00
Direct labour	Rs.75.00
Variable overhead	Rs.25.00

The fixed factory overheads are expected to go up by 10% and selling and administrative expenses will be increased by Rs.12,000 per annum. There will be an increase of working capital by Rs.175,000.

You are required to advice the company whether the manufacturing of the new product should be undertaken.

(12 marks)

(Total 25 marks)



03)

- a) Monthly demand for a particular good is 800 units at the price per unit is Rs.50.00. And when price increase to Rs.58.00 the monthly demand will decrease to 480 units. Fixed cost per month is Rs.5,000 and variable cost per unit is Rs.40.00.

Using the above information you are required to;

- i. Derive the equation of the demand function that shows the price and quantity demanded assuming it to be linear. (4 marks)

- ii. Determine the profit maximizing unit price and the quantity demanded at the profit maximizing price (4 marks)

- iii. Determine the maximum profit (2 marks)

- iv. Discuss the problems of applying optimal maximizing technique in determining a price of a product (5 marks)

- b) "Standard cost and budgeted cost are two different concepts". Comment on the statement stating whether you agree on it. (4 marks)

- c) The following information is relevant to product X.

Standard direct material cost per unit is 2 Kgs of material at Rs.50 per kg = Rs.100

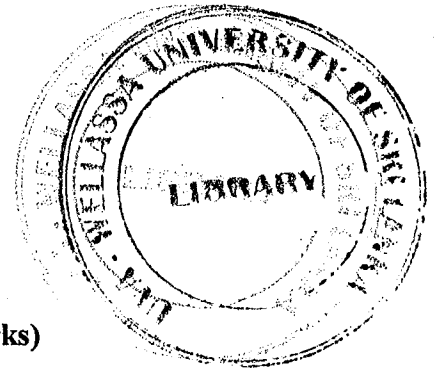
During the period 5,000 units of product X were manufactured using 11,750 kgs. The

actual cost of material for 11,750 Kgs was Rs.99875.00. You are required to calculate

the direct material total variance, direct material price variance and direct material

usage variance. (6 marks)

(Total 25 marks)



PART C - 50 Marks

This part consists two sections as follows:

Section I – Cost Accounting (25 Marks)

Section II – Management Accounting (25 Marks)

Section I (Cost Accounting) – 25 Marks

Answer only **Two** Questions *including Question Number 6* in this section

6. The details given below are relevant to the process 2 of the month of August 2009. Opening stock 600 units at a cost of Rs.1050 and had been completed as follows. Raw material 80%, labour 60% and overhead 60%.
Units introduced to the process 2 was 11,000 at a cost of Rs.5,500
Units transferred to process 3 were 8,800 and direct material, direct labour and overhead cost introduced to process 2 are Rs.2,410, Rs. 7,155 and Rs. 9,540 respectively. Actual loss on production in process 2 was 1200 units and these units were completed as 100% on raw material, 70% on labour and 70% overhead. 1600 units were in the closing stock of process 2 and these units have been completed as follows.
Raw material 70%, labour 60% and overhead 60%
The estimated loss on process 2 is 10 % on production and these loss units (scrap) can be sold at Rs. 0.50.

You are required to prepare;

- a) Statement of equivalent production
- b) Cost Statement
- c) Statement of Evaluation
- d) Process Account

(15 Marks)

7.

- a. Identify the key features of joint product (2 Marks)
- b. Differentiate a joint product from by product (2 Marks)
- c. PQR has a factory where two products are originated in a common process. During the period the cost of the common process was Rs. 120,000. Output was as follows

Product	Units produced	Units sold	Sales value per unit
P1	800	0	0
Q	400	300	120

Product P1 further processed separately to produce final product R. The further processing cost of P1 was RS.4,000 and the sales value per unit of R is Rs. 105. The company produced 800 units of R and 650 units has been sold during the period.

The company policy is to allocate the joint cost based on the saleable value less further processing cost.

You are required to calculate the cost of each joint product and profit from each of them in the period assuming that there were no any opening stocks.

(6 Marks)

(2 Marks)
(2 Marks)
n process.
0. Output
er unit
R. The
of R is
en sold
value
from
s.
arks)

8. Dulan Ltd has begun to produce a new product, product X for which following cost estimates have been made

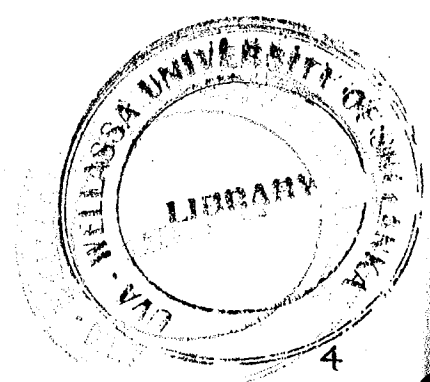
Direct material	Rs. 35
Direct labour (hours at Rs.8 per hour)	Rs. 32
Variable production overhead (Machining ½ hour at Rs.6 per hour)	<u>Rs. 3</u>
	<u>Rs. 70</u>

Fixed production overhead costs are budgeted at Rs. 300,000 per month. The company will be restricted to 10,000 hours of machining time per month because of the shortage of available machine capacity. The absorption rate will be a direct labour hour rate and the budgeted direct labour hours are 20,000 per month.

According to the estimates the company can obtain a minimum contribution of Rs.12 per machine hour on production item other than product X.

The company wishes to make a profit of 25% on full cost from product X

You are required to calculate full cost plus based price (10 Marks)



SECTION II (Management Accounting) – 25 Marks

Answer **Two** Questions ***Including Question Number 9*** in this section.

9. The followings are the summarized accounts for two companies operating in the same industry for the year ended 31st March 2009.

Summarized Balance Sheet for	Anu PLC Rs.000'	Binu PLC Rs.000'
Non-Current Assets		
Property, Plant and Equipment	90,000	20,000
Current Assets		
Inventories	20,000	6,000
Trade Receivables	45,000	9,000
Cash and Bank Balances	1,000	100
	-----	-----
Total Current Assets	66,000	15,100
	-----	-----
Total Assets	156,000	35,100
	=====	=====
Capital and Reserves		
Stated Capital	30,000	15,000
Accumulated Profits	12,600	9,000
	-----	-----
Total Equity	42,600	24,000
Non-Current Liabilities		
Interest Bearing Loans and Borrowings	100,000	-
Current Liabilities		
Trade Payables	5,900	4,400
Income Tax Liabilities	3,000	2,500
Dividend Payables	4,500	4,200
	-----	-----
Total Current Liabilities	13,400	11,100
	-----	-----
Total Equity and Liabilities	156,000	35,100
	=====	=====

Summarized Income Statement	Anu PLC Rs.000'	Binu PLC Rs.000'
Revenue	360,000	120,000
Cost of Sales	280,000	90,000
	-----	-----
Gross Profit	80,000	30,000
Administration and Distribution Expenses	30,000	16,000
Net profit before interest, taxation	50,000	14,000
Finance cost	30,000	-
	-----	-----
Net profit before taxation	20,000	14,000
Income Tax	3,000	2,500
	-----	-----
Net profit after taxation	17,000	11,500
Dividend	4,500	4,200
	-----	-----
Retained profit	12,500	7,300
Retained profit b/f	100	1,700
	-----	-----
Retained profit c/f	12,600	9,000
	=====	=====

You are required to:

- a) Calculate the following accounting ratios for the two companies for the year 2009.
- (i) Gross Profit Margin
 - (ii) Return on Capital Employed (ROCE)
 - (iii) Current Ratio
 - (iv) Quick Assets Ratio
 - (v) Asset Turnover Ratio
 - (vi) Dividend Cover
 - (vii) Earnings per share(EPS)

Note: State your assumptions very clearly (if any)



b) Explain, with reasons, which one of the two companies is more attractive investment proposition, commenting on how the ratios above, and others, have influenced your decision. (15 Marks)

10. Heritage Limited is considering the manufacture of a new product which would involve the use of both a new machine (costing Rs.15,000) and an existing machine, which cost Rs.80,000 two years ago and has a current net book value of Rs.60,000. There is sufficient capacity on this machine, which has so far been under-utilized. Annual sales of the project would be 5,000 units, selling at Rs.32 per unit.

Cost Item	Rs.
Direct Materials	7
Direct Labour	8
Fixed Costs including depreciation	<u>9</u>
Total Cost Per Unit	<u>24</u>

The project would have a five-year life, after which the new machine would have a net residual value of Rs.10,000. Because direct labour is continually in short supply, labour recourses would have to be diverted from other work which currently earns a contribution of Rs.1.50 per direct labour hour. The fixed overhead absorption rate would be Rs.2.25 per hour (Rs. 9 per unit) but actual expenditure on fixed overhead would not alter.

Working capital requirements would be Rs.10, 000 in the first year, rising to Rs.15,000 in the second year and remaining at this level until the end of the project, when it will all be recovered. The company's cost of capital is 20%. Ignore taxation.

You are required to:

Assess whether the project is worthwhile.

(10 Marks)

11. The following data relate to Nethmin Ltd, a manufacturing company.

Turnover for the year	Rs. 1,500,000
Cost as a percentage of sales	%
Direct materials	30
Direct Labour	25
Variable overheads	10
Fixed overheads	15
Selling and distribution	5

On average

- i. Debtors take 2.5 months before payment.
- ii. Raw materials are in stock for three months.
- iii. Work-in-progress represents two months worth of half produced goods.
- iv. Finished goods represents on month's production.
- v. Credit is taken as follows:

Direct materials	2 months
Direct labour	1 week
Variable overheads	1 month
Fixed overheads	1 month
Selling and distribution	0.5 months

Note: Work-in-progress and finished goods are valued at material, labour and variable expense cost.

You are required to:

Compute the working capital requirement of Nethmin Ltd (assuming the labour force paid for 50 working weeks a year). (10 Marks)

