

Series 4 Examination 2010

COST ACCOUNTING

Level 3

Monday 6 December

Subject Code: 3717/S

Time allowed: **3 hours**

INSTRUCTIONS FOR CANDIDATES

- Answer **all 5** questions.
- All questions carry equal marks.
- Study the “**REQUIRED**” section of each question carefully and extract the data required for your answers from the information supplied.
- Write your answers in blue or black ink/ballpoint. You can only use pencil for graphs, charts, diagrams, etc.
- Begin your answer to each question on a new page.
- All answers must be correctly numbered but need not be in numerical order.
- Workings must be shown.
- You may use a calculator provided the calculator gives no printout, has no word display facilities, is silent and cordless. The provision of batteries and their condition is your responsibility.
- Marks may be lost through lack of neatness and poor presentation.

QUESTION 1

Giovanni Manuchoo manufactures a single product.

It is anticipated that monthly production and sales will be between 10,000 and 14,000 units.

The following monthly cost budgets have been prepared covering two levels of activity:

Monthly costs \$	Units 10,000	Units 14,000
Direct materials	234,000	325,845
Direct labour	162,000	231,660
Production overheads	218,250	244,350
Administration overheads	142,650	142,650
Selling overheads	112,050	132,570

The following budgeted information is also provided:

- (i) Each unit requires 3 kg of raw material. A 5% discount is received on the excess of purchases of raw material over 37,500 kg per month
- (ii) The direct labour cost per unit increases by 20% on the excess of production over 12,500 units per month
- (iii) Production overheads consist of a proportionately variable element plus a fixed monthly amount. In addition, there is a stepped increase of \$13,500 in the fixed monthly amount when production reaches 11,500 units
- (iv) Selling overheads include variable costs of \$5.13 per unit
- (v) No stock of finished goods or raw materials is held

During the month just ended, 13,200 units were manufactured and sold and the following costs were incurred:

	\$
Direct materials	308,491
Direct labour	211,966
Production overheads	244,975
Administration overheads	142,050
Selling overheads	129,406

REQUIRED

- (a) Prepare a statement for the month just ended showing, for each cost element, the flexed cost budget, the actual costs and the variance. (16 marks)
- (b) Explain what is meant by the terms 'fixed budget' and 'flexible budget'. (2 marks)
- (c) State the main objective for preparing flexible budgets. (2 marks)

(Total 20 marks)

QUESTION 2

Garcia Mendy operates a non-integrated accounting system.

At the end of an accounting period the profit shown in the financial accounts was \$121,900.

Examination of the two sets of accounts revealed the following differences in the stock valuations:

	Cost accounts	Financial accounts
	\$	\$
Opening stock valuations:		
Raw materials	85,350	89,140
Work-in-progress	56,150	54,200
Finished goods	66,300	72,950
Closing stock valuations:		
Raw materials	71,400	73,500
Work-in-progress	58,900	64,100
Finished goods	84,300	83,100

Further investigations revealed the following:

1. Depreciation in the cost accounts was recorded as \$32,300; whilst in the financial accounts it was recorded as \$29,100
2. A profit on the sale of assets totalling \$6,850 was recorded in the financial accounts
3. Discounts Allowed to customers totalling \$4,850 and Discounts Received from suppliers totalling \$8,160 had been recorded in the financial accounts
4. Sundry Investment Income of \$6,250 had been recorded in the financial accounts
5. Dividends Received totaling \$2,750 had been recorded in the financial accounts
6. Interest Charges for a Bank Loan amounting to \$8,250 had been recorded in the financial accounts
7. A Notional Rent charge of \$7,650 had been recorded in the cost accounts
8. Under absorbed production overheads totalling \$8,500 had been carried forward in the costs accounts

REQUIRED

- (a) Calculate the profit for the period as shown in the cost accounts by means of a profit reconciliation statement. (16 marks)
- (b) Distinguish between an integrated and a non-integrated accounting system. (2 marks)
- (c) Suggest a reason why the depreciation charges are different in the two sets of accounts. (2 marks)

(Total 20 marks)

QUESTION 3

Dawson Ghilas Limited manufactures a single product.

The budget for a period includes the following:

Sales/production	1,600 units
Standard selling price per unit	\$75
Standard cost per unit	\$65

During the period the actual results were as follows:

Sales/production	1,560 units
Sales revenue	\$114,500
Total cost	\$95,600

REQUIRED:

(a) Calculate the following variances for the period:

(i) Sales price variance

(ii) Sales volume profit variance

(iii) Total cost variance

(iv) Total profit variance

(9 marks)

Cousin Zayette makes a single product and uses a standard absorption costing system.

The production budgets for a period include the following:

Production	9,100 units
Direct labour per unit	9 hours

During the period the **actual** results were:

Production	9,320 units
Direct labour hours	87,450

REQUIRED:

(b) Calculate for the period the following production ratios (to two decimal places):

(i) Efficiency

(ii) Capacity

(iii) Production volume (activity)

(9 marks)

(c) Explain the meaning of the term **Standard Hour**.

(2 marks)

(Total 20 marks)

QUESTION 4

Duke Halmosi uses a material which it obtains from an outside supplier.

Each delivery of the material consists of 45,000 kilograms at a cost of \$ 22.50 per kg.

The lead time for delivery can vary between 14 and 22 days.

The rate of usage of the material varies between 480 and 720 kgs per day.

Stock holding costs amount to 8% per annum of the average stockholding value.

You should assume that the company maintains the minimum level of stock.

REQUIRED:

- (a) Calculate:
- (i) The reorder level in kgs (in order to avoid a stockout) (2 marks)
 - (ii) The minimum stock control level in kgs (2 marks)
 - (iii) The maximum stock control level in kgs (2 marks)
 - (iv) The average stock in kgs (2 marks)
 - (v) The annual stock holding costs in \$ (2 marks)

Bullard Limited manufactures products using three production cost centres: Machining, Assembly and Finishing.

The budgeted production overhead costs for 2009 were as follows:

Cost centres	Machining	Assembly	Finishing
	\$	\$	\$
	255,000	292,500	80,000

The machine hours and direct labour hours for 2009 were budgeted as:

Cost centres	Machining	Assembly	Finishing
Machine hours	30,000	20,000	5,000
Direct labour hours	20,000	30,000	10,000

Actual results for 2009 were:

	Machining	Assembly	Finishing
Overheads incurred - \$	248,185	301,400	82,400
Actual machine hours	29,710	18,125	5,450
Actual direct labour hours	18,045	29,900	10,100

REQUIRED:

- (b) Calculate pre-determined overhead absorption rates for each of the three production cost centres for 2009, using the most suitable basis. (4 marks)
- (c) Calculate the over/under absorbed overhead for each production cost centre in 2009. (6 marks)

(Total 20 marks)

QUESTION 5

Bernard Ashbee Limited has budgeted to produce and sell 7,000 units of its product in a period.

The following budgeted information has been prepared for the period:

Selling price \$40 per unit

Direct labour 2 hrs per unit @ \$3 per hour

Direct materials 4 kgs per unit @ \$2 per kg

Variable production overheads \$4 per direct labour hour

Variable selling and administration overheads \$6 per unit

Fixed overheads \$6 per unit

REQUIRED

- (a) Using marginal costing, calculate for the period the budgeted:
- (i) Contribution per unit (2 marks)
 - (ii) Total contribution and total net profit (4 marks)
 - (iii) Break even point (in units) (2 marks)
 - (iv) Calculate the sales in units the company would have to achieve if it wished to make a profit of \$36,000 for the period (2 marks)
 - (v) Determine the margin of safety as a % of the sales figure you have calculated in (iv) above (2 marks)
- (b) Using the graph paper provided, prepare a **contribution break-even chart**, using the original budgeted information, clearly showing:
- (i) The break-even point
 - (ii) The margin of safety (8 marks)

(Total 20 marks)