

**Series 2 Examination 2008**

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## **COST ACCOUNTING**

**Level 3**

**Tuesday 27 May**

Subject Code: 3616/M

Time allowed: **3 hours**

### **INSTRUCTIONS FOR CANDIDATES**

- Answer **5** questions.
- All questions carry equal marks.
- Write your answers in blue or black ink/ballpoint. Pencil may be used only 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.
- Presentation is important.
- 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.

## QUESTION 1

Elbourne Limited manufactures a product whereby the initial raw material passes through two processes (Process One and Process Two).

The output of Process One is passed to Process Two, where further raw material is added.

Direct costs and output for the month just ended were:

### Process One

Initial raw material	3,800 kgs costing RM 200,000
Direct labour	RM 145,210
Expected output	85% of input and materials added
Transfer to Process Two	3,150 kgs

### Process Two

Transfer from Process One	3,150 kgs
Raw materials added	2,850 kgs costing RM 287,500
Direct labour	RM 89,690
Expected output	90% of input
Actual output	5,520 kgs

There was no work in progress at either the beginning or end of the month.

Overheads for the month totalled RM 420,800.

The overheads are apportioned between the two processes as follows:

Process One 55%

Process Two 45%

Losses that arise from the processes are sold for scrap.

Losses that occur from Process One are sold for RM 20 per kg, whilst the losses that occur from Process Two are sold for RM 18 per kg.

## REQUIRED

Prepare for the month just ended:

- (a) Process One Account (6 marks)
- (b) Process Two Account (6 marks)
- (c) Normal Loss/Gain Account (4 marks)
- (d) Abnormal Loss/Gain Account. (4 marks)

**(Total 20 marks)**

## QUESTION 2

Myhill Limited manufactures and sells a single product A, which uses raw material X in its production.

The sales budget for the next four month period is as follows:

	<b>Month 1</b>	<b>Month 2</b>	<b>Month 3</b>	<b>Month 4</b>
Product A (units)	9,500	9,700	10,100	10,200

Stock of finished goods at the start of the budget period is expected to be sufficient to meet 20% of the budgeted sales for the first month, and by the end of each month in the budget period should be sufficient to meet 25% of the budgeted sales for each following month.

The quantity of raw material X required, per unit of product manufactured, is 9 kgs.

In addition to this requirement for raw material in the finished product, allowance has to be made for a 10% loss in weight in the preparation of material X.

Stock of raw material X at the start of the period is expected to be 12,000 kgs.

At the end of each month in the budget period the stock of material X should be increased by 10%.

The price for material X is expected to be RM 3 per kg.

### REQUIRED

(a) Prepare the following budgets for each of months 1, 2 and 3:

- (i) Production of product A (units) (6 marks)
- (ii) Purchases of raw material X (kgs and total RM). (9 marks)

(b) Define, giving **2** examples, the term principal budget factor, and explain its influence on the budget setting process.

(5 marks)

**(Total 20 marks)**

### QUESTION 3

Paton Limited operates a non-integrated accounting system.

At the end of an accounting period the profit for the period shown in the financial accounts was RM 26,094.

Examination of the two sets of accounts revealed the following differences:

	<b>Cost accounts RM</b>	<b>Financial accounts RM</b>
Opening stock valuations:		
Raw materials	38,550	37,239
Work-in-progress	25,929	29,037
Finished goods	65,538	62,918
Closing stock valuations:		
Raw materials	42,810	40,230
Work-in-progress	21,730	20,352
Finished goods	79,026	77,888
Depreciation	14,589	15,577
Profit on sale of an asset		2,250
Dividends received		3,750
Discount allowed to customers		2,542
Sundry investment income		4,125
Notional rent charge	11,250	

#### REQUIRED

- (a) Calculate the profit for the period as shown in the cost accounts by means of a profit reconciliation statement. (12 marks)
- (b) Distinguish between an integrated and a non-integrated accounting system. (3 marks)
- (c) One of the items appearing in the cost accounts is a notional rent charge. Explain what is meant by a notional charge and why it is used. (3 marks)
- (d) Suggest a reason why the depreciation charges are different in the two sets of accounts (2 marks)

**(Total 20 marks)**

#### QUESTION 4

Forrest Limited manufactures a single product and the following standard costs apply:

	<b>RM per unit</b>
Direct materials 5 kilos at RM 6 per kilo	30.00
Direct labour 4.5 hours at RM 9 per hour	40.50
Variable production overheads at RM 3 per direct labour hour	13.50
Fixed production overheads at RM 4 per direct labour hour	<u>18.00</u>
Total Standard Production Cost (per unit)	<u>102.00</u>

For the period, production and sales were budgeted at 15,000 units.

The actual data for the period is as follows:

Production 15,900 units  
Direct materials purchased and used 82,500 kilos costing RM 478,500  
Direct labour 69,900 hours at a cost of RM 650,070  
Variable production overheads amounted to RM 223,680  
Fixed production overheads totalled RM 261,000

#### REQUIRED

(a) Calculate the following production cost variances for the period:

- (i) Direct Material Price
- (ii) Direct Material Usage
- (iii) Direct Labour Rate
- (iv) Direct Labour Efficiency
- (v) Variable Overhead Expenditure
- (vi) Variable Overhead Efficiency
- (vii) Fixed Overhead Expenditure
- (viii) Fixed Overhead Volume.

(10 marks)

(b) Using the variances above, prepare a statement reconciling the total standard and the total actual costs for the period.

(6 marks)

(c) State the reason for each of the variances on the Direct Materials and Direct Labour costs.

(4 marks)

**(Total 20 marks)**

## QUESTION 5

Wiseman Ltd makes four separate components, which are used in the assembly of its products.

There is a limit on capacity of 44,000 direct labour hours in the next period for the manufacture of components, which will not be sufficient to meet the anticipated demand.

Therefore it will be necessary to buy in some components from an outside supplier to make up any shortfall.

The company has the following requirements for the four components in the next period:

Component	One	Two	Three	Four
Requirements: Units	2,000	5,000	6,000	3,000

The following information also relates to the next period:

Components	One	Two	Three	Four
Direct material per unit @ RM 5 per kg	8 kgs	10 kgs	4 kgs	8 kgs
Direct labour hours per unit	3	4	3	4
Machine hours per unit	4	6	4	2

The direct labour rates, per hour, are as follows:

Component One	Component Two	Component Three	Component Four
RM 16	RM 14	RM 12	RM 12

Variable production overheads are absorbed on direct labour hours at RM 4 per hour.

Fixed production overheads are absorbed on direct labour hours at RM 8 per hour.

A sub-contractor has offered to supply components for the following unit prices:

Component One RM 121; Component Two RM 166; Component Three RM 98; and Component Four RM 136

### REQUIRED

For the next period:

- (a) Calculate the shortfall in capacity (2 marks)
- (b) Determine the production schedule, and the details of bought in requirements, that should be undertaken by the company to maximize profit (14 marks)
- (c) Identify two other factors, apart from cost, that the company ought to take into consideration when buying in components. (4 marks)

**(Total 20 marks)**

## QUESTION 6

Rodgers Limited has budgeted to sell 50,000 units of its product in December.

The following further budgeted information has been prepared for the month:

Selling price RM 80 per unit

Direct labour 4 hrs per unit @ RM 6 per hour

Direct materials 4 kgs per unit @ RM 4 per kg

Variable production overheads RM 4 per direct labour hour

Variable administration overheads RM 5 per unit

Variable selling overheads RM 4 per unit

Fixed overheads total for the month RM 273,750

### REQUIRED

- (a) Prepare a budgeted profit statement for December in a marginal costing format both in RM per unit and total RM. (6 marks)
- (b) Calculate the break-even point, in units, for the month and the margin of safety as a percentage of budgeted sales. (4 marks)
- (c) Prepare a conventional break-even chart on the graph paper provided, with sales measured in units, clearly showing:
- (i) The break-even point
  - (ii) The margin of safety. (6 marks)

The company is considering installing new machinery which would increase the fixed overheads by RM 53,750 per month but would reduce direct labour time by one hour per unit.

- (d) Calculate the revised break-even point, in units, for the month and the revised margin of safety as a percentage of budgeted sales. (4 marks)

**(Total 20 marks)**