

**SERIES 2 EXAMINATION 2006**

**COST ACCOUNTING**

**LEVEL 3**

(Code No: 3616/M)

MONDAY 5 JUNE

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***Instructions to Candidates***

- (a) *The time allowed for this examination is 3 hours.*
  - (b) *Answer 5 questions*
  - (c) *All questions carry equal marks.*
  - (d) *All answers must be clearly and correctly numbered but need not be in numerical order.*
  - (e) *Your answers should be written in blue or black ink/ballpoint. Pencil may only be used for graphs, charts, diagrams, etc.*
  - (f) *Presentation is important and marks may be lost through lack of neatness.*
  - (g) *Candidates may use calculators provided the calculators give no printout, have no word display facilities, are silent and cordless. The provision of batteries and responsibility for their condition must rest with the candidate.*
  - (h) *It is recommended that candidates show essential workings.*
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## QUESTION 1

Edge Limited makes and distributes a single product and budgeted to produce 2,000 units in a month.

The standard production cost of one unit of the product is as follows:

	<b>RM per unit</b>
Direct materials (8 kilos x RM7.50 per kilo)	60.00
Direct labour (3 hours x RM24 per hour)	72.00
Variable production overheads (3 hours x RM6 per hour)	18.00
Fixed production overheads (3 hours x RM3 per hour)	<u>9.00</u>
Total Standard Production Cost (per unit)	<u>159.00</u>

The actual production for the month was 2,200 units and the actual costs incurred were as follows:

	<b>RM</b>
Direct materials purchased at 18,800 kilos	138,180
Direct labour at 7,000 hours	142,560
Variable production overheads	36,750
Fixed production overheads	19,500

The opening stock of raw materials was 3,000 kilos, valued at standard purchase price, the raw material price variance being calculated at the time of purchase.

19,800 kilos of materials were issued to production in the month.

There was no opening stock or closing stock of work in progress.

### REQUIRED

Prepare the following accounts in the company's integrated accounting system:

- (a) Raw Material Stock (5 marks)
- (b) Production Overhead (6 marks)
- (c) Work in Progress (9 marks)

When compiling the above, show clearly all relevant variances within the three above accounts.

**(Total 20 marks)**

## QUESTION 2

Lewis Court Limited manufactures a single product.

The budget for a period includes the following:

Sales/Production	800 units
Standard selling price per unit	RM145
Standard cost per unit	RM125

During the period the actual results were as follows:

Sales/Production	780 units
Sales revenue	RM116,450
Total cost	RM95,580

### 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

(8 marks)

Roland Wiseman Limited makes a single product and uses a standard absorption costing system.

The production budgets for a period include the following:

Production	18,000 units
Direct labour hours per unit	4.5

During the period the actual results were:

Production	18,600 units
Direct labour hours	87,520

### REQUIRED

(b) Calculate for the period the following production ratios:

- (i) efficiency
- (ii) capacity
- (iii) production volume (activity)

(9 marks)

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

(3 marks)

**(Total 20 marks)**

### QUESTION 3

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

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

	<b>Month 1</b>	<b>Month 2</b>	<b>Month 3</b>
Product A (units)	54,500	55,624	57,535

Stock of finished goods at the start of the budget period is 5,553 units. This is to be increased to 10,000 by the end of the first month and increased by 2,000 units a month thereafter.

2% of the finished goods produced are budgeted to be rejected. These will be disposed of with no further value

The quantity of raw material X required per unit of finished product is 3 kilos. 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 budget period is to be 24,000 kilos. 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 RM5 per kilo.

#### REQUIRED

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

(i) Production of product A (units) (7 marks)

(ii) Purchases of raw material X (kilos and total RMs) (9 marks)

(b) Define the term **principle budget factor** and explain its influence on the budget setting process. (4 marks)

**(Total 20 marks)**

#### QUESTION 4

Burgess Facey Ltd has three production cost centres (A, B and C) and two service cost centres (Stores and Maintenance), in its factory. The company re-apportions the costs of the service cost centres to the production cost centres in order to calculate budgeted overhead absorption rates.

The budgeted production overhead costs for a period allocated to the five cost centres were as follows:

	Production cost centres			Service cost centres	
	A	B	C	Stores	Maintenance
Allocated overheads (RM)	225,000	180,000	144,000	87,000	52,500

Other budgeted overheads, which have yet to be apportioned, are as follows (RM):

Rent and Rates	180,000
Depreciation	225,000
Supervision	360,000

In addition, the following budgeted information is available for each cost centre:

	Production cost centres			Service cost centres	
	A	B	C	Stores	Maintenance
Number of employees	66	51	45	6	12
Floor area (m <sup>2</sup> )	4,500	3,600	2,400	3,000	1,500
Machine cost (RM)	420,000	270,000	150,000	24,000	36,000
Usage of stores	40%	30%	20%	Nil	10%
Usage of maintenance	35%	30%	15%	20%	nil

Budgeted machine hours for the period were 60,000 for Production Cost Centre A, 39,850 for Production Cost Centre B, and 30,000 for Production Cost Centre C

Actual results for the period were as follows:

	Production cost centres		
	A	B	C
Allocated overheads (RM) (allocated and apportioned)	585,750	480,575	355,250
Actual machine hours	58,750	39,200	29,780

#### REQUIRED

- (a) Produce a budgeted overhead distribution table, for the period, showing the allocated and apportioned costs for the five cost centres

(3 marks)

#### QUESTION 4 CONTINUED

- (b) Re-apportion the budgeted service cost centre overheads to the production cost centres, using **simultaneous equations**. (Full marks will **not** be awarded for other methods). (8 marks)
- (c) Calculate a pre-determined overhead absorption rate, to TWO decimal places of RM per machine hour, for each of the three production cost centres. (3 marks)
- (d) Calculate the over/under absorbed overhead for each production cost centre. (6 marks)

**(Total 20 marks)**

#### QUESTION 5

Ashbee Stockdale Limited has budgeted to sell 35,000 units of its product in a period.

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

Selling price RM60 per unit

Direct labour 3 hrs per unit @ RM6 per hour

Direct materials 2 kgs per unit @ RM7 per kg

Variable production overheads RM4 per direct labour hour

Variable selling and administration overheads RM8 per unit

Fixed overheads RM5 per unit

#### REQUIRED

- (a) Using marginal costing, calculate for the period the budgeted:
- (i) Contribution per unit
  - (ii) Total contribution and total net profit
  - (iii) Break even point (in units)
  - (iv) Margin of safety as a % of sales
- (10 marks)
- (b) Using the **graph paper** provided, prepare a conventional **break-even chart**, clearly showing:
- (i) The break-even point
  - (ii) The margin of safety
- (6 marks)
- (c) State **THREE** assumptions in cost-volume-profit analysis. (4 marks)

**(Total 20 marks)**

## QUESTION 6

Elliot Ellison Limited manufactures three products, details of which are as follows:

Product	A	B	C
Selling price per unit (RM)	84	72	62
Variable cost per unit (RM)	44	36	30
Weekly demand (units)	300	400	500
Machine hours per unit	4	3	4

Additional information:

Fixed costs are RM12,500 per week

The firm currently has 40 machines, which have insufficient capacity to satisfy demand

The company is considering three, separate, proposals:

- (i) To operate the machines at the present capacity of 2 x 7 hour shifts per day for a five day week.
- (ii) To change to 3 x 7 hours shifts per day for a 5 day week, where upon variable costs of each product would rise by 10% per unit and fixed costs would increase by RM5,000 per week.
- (iii) To install 10 extra machines, and to operate on the normal 2 x 7 hour shifts per day for a 5 day week, where upon fixed costs would increase by RM7,500 per week.

### REQUIRED

- (a) Calculate the short fall in capacity for the period, based on operating the existing machines for 2 x 7 hour shifts per day for a 5 day week. (2 marks)
- (b) Determine the maximum weekly profit possible from each proposal. (16 marks)
- (c) State which alternative you would recommend. (2 marks)

**(Total 20 marks)**