

Series 2 Examination 2007

CERTIFICATE IN MANAGEMENT ACCOUNTING

Level 3

Tuesday 29 May

Subject Code: 3623/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 workings must be shown.
- All answers must be correctly numbered but need not be in numerical order.
- 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

- (a) Define the term Investment Centre and state the three primary financial ratios that may be used to evaluate the performance of an Investment Centre, showing the formula for each ratio.
(8 marks)
- (b) State the benefits that may arise for a company from the use of a Budgetary Planning and Control System.
(6 marks)
- (c) Explain what is meant by a limiting factor of production, and state how it can be used in order to maximise profit.
(6 marks)
- (Total 20 marks)**

QUESTION 2

A company has forecast its sales for the next seven months:

RM000	May	June	July	August	September	October	November
	54	58	60	60	58	56	54

Additional Information

- 70% of the sales are on credit, receivable one month after sale.
- No bad debts are anticipated.
- Gross profit to sales ratio is budgeted at 50%.
- Purchases of goods for resale are paid for two months after delivery.
- Stock is maintained at 40% of the following month's sales.
- Staff salaries are payable in the month incurred and are currently RM 6,000 per month. A 10% increase is budgeted for, commencing in September.
- Variable overheads are budgeted at 10% of sales value, payable one month in arrears.
- Budgeted monthly fixed costs (including depreciation of RM 1,000) are RM 6,000 and payable one month in arrears.
- A delivery vehicle will be purchased for RM 8,000 and paid for in July, and the company has a tax liability of RM 20,000 payable in September.
- The cash balance on 1 July is expected to be RM 8,000 in hand.

Required

- (a) Prepare a cash budget for each of the four months July, August, September and October.
(14 marks)
- (b) Calculate the budgeted current ratio at 31 October.
(6 marks)
- (Total 20 marks)**

QUESTION 3

A company which makes and sells one product only, prepared the following budget for a four-week period.

Production	12,000 units
Direct material	36,000kg at RM4 per kg
Direct labour	21,600 hours at RM4 per hour
Fixed overhead	RM 96,000

The fixed overhead is absorbed using a budgeted four-weekly rate per unit.
The standard selling price is RM40 per unit.

The following actual results were recorded for the four week period:

Production	12,200 units	
Sales	RM468,000	
Direct material	37,000 kg	RM 152,400
Direct labour	21,400 hours	RM 89,880
Fixed overhead		RM 97,500

The company has no stocks of finished product, or raw material.

Required

- (a) Calculate the following variances for the four-week period:
- (i) Selling price
 - (ii) Direct material price
 - (iii) Direct material usage
 - (iv) Direct labour rate
 - (v) Direct labour efficiency
- (10 marks)
- (b) Calculate the amount of over or under absorbed fixed overhead in the four week period.
- (3 marks)
- (c) State the factors that give rise to an over or under absorption of fixed overhead.
- (2 marks)
- (d) Analyse the answer to (b) above, for each factor stated in your answer to (c).
- (3 marks)
- (e) Calculate the Capacity Ratio.
- (2 marks)
- (Total 20 marks)**

QUESTION 4

A company manufacturing a single product has the following production and sales data for two periods:

	Period 1	Period 2
Production	32,000 litres	29,000 litres
Sales	29,000 litres	32,000 litres

Selling price and variable cost details per litre are:

	RM
Selling price	40
Direct material	8
Direct labour	8
Production overheads	6
Selling and administration overheads	5

Periodic fixed costs are:

Production overheads	RM 120,000
Selling and administration overheads	RM 90,000

There was a stock of 3,000 litres of product at the beginning of period 1.

Production was budgeted at 30,000 litres per period, and is used to establish a pre-determined fixed production overhead rate where absorption costing is used.

Required

- (a) From the above information, prepare profit statements for each period using each of the following:
- (i) Marginal costing (8 marks)
 - (ii) Absorption costing (8 marks)
- (b) Explain the difference in profit between marginal and absorption costing in **each** period. Your explanation should be supported by calculations. (4 marks)

(Total 20 marks)

QUESTION 5

A company had budgeted the following figures for the forthcoming period:

Production and sales 900 units

Costs:	RM
Direct material	27,000
Direct labour	22,500
Production overhead	
Variable	18,000
Fixed	21,000
Sales overhead	13,000

Selling price RM 180 per unit

The variable element included in sales overhead is RM 7.50 per unit

Two alternatives are being considered:

- (i) If the selling price was to be reduced to RM 160 an extra 200 units could be sold in the period. The labour cost would increase by 20% for all units, and there would be an increase in production fixed overhead of RM 5000.
- (ii) If the selling price was to be increased to RM 230, sales volume would fall to 650 units in the period. Also, a loss of quantity discount would cause the material cost to rise by 10%.

REQUIRED

- (a) Calculate the original budgeted profit and break even point (in sales revenue) for the period. (5 marks)
- (b) Calculate the expected profit in the period for each of the two alternatives. (9 marks)
- (c) Calculate the break-even point (in sales revenue) for each of the two alternatives. (4 marks)
- (d) Advise the company, giving reasons, as to which (if either) alternative to accept. (2 marks)

(Total 20 marks)

QUESTION 6

A company is evaluating new machinery which, if purchased, would increase production of an existing product. The machinery under consideration would cost RM 200,000 and have a residual value after 5 years of RM 30,000.

The increased production would have an incremental annual sales value of RM 150,000 for years 1-3, and RM 110,000 for each of years 4 and 5. The contribution to sales ratio will be 40% constant over the five years. There will be no incremental fixed costs other than depreciation of the new machinery calculated on a straight-line basis.

The company has a cost of capital of 10% per annum.

Relevant discount factors are:	5%	10%	15%	20%
Year 1	.952	.909	.870	.833
Year 2	.907	.826	.756	.694
Year 3	.864	.751	.658	.579
Year 4	.823	.683	.572	.482
Year 5	.784	.621	.497	.402

REQUIRED

- (a) Evaluate the viability of investing in the new machinery using each of the following methods:
- (i) Accounting rate of return (using average capital investment). (4 marks)
 - (ii) Net present value (NPV). (5 marks)
 - (iii) Internal rate of return (IRR). (4 marks)
- (b) Briefly identify the strengths and weaknesses of the Accounting Rate of Return, and the Net Present Value methods. (4 marks)
- (c) Describe how the cost of capital is calculated for use in discounted cash flow methods (3 marks)

(Total 20 marks)