

Certificate in Management Accounting

ASE3024

Level 3

Tuesday 9 April 2013

Time allowed: 3 hours

Information

- There are 5 questions in this examination.
 - Total marks available: 100
 - All questions carry equal marks.
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Instructions

- Do NOT open this paper until you are told to do so by the supervisor.
 - Answer **all questions**.
 - Write your answers in blue or black ink/ballpoint. You can only use pencil for graphs, charts, diagrams, etc.
 - Please ensure your answers are written clearly, or marks may be lost.
 - 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.
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QUESTION 1

Bosingwa Limited manufactures a single product, and has prepared the following budget for the next period:

Production and sales in units	9,450
Costs (£s)	
Direct materials	37,800
Direct labour	28,350
Production overheads	33,075
Selling, distribution and admin costs	28,965
Total costs	128,190
Cost per unit	13.56

The following information should also be taken into account:

- (1) The above budget is based on a 90% utilisation of the maximum operating capacity
- (2) The direct costs are proportionally variable with activity
- (3) The production overhead is a semi variable cost. At the maximum capacity (10,500 units) the budgeted overhead would be £35,175
- (4) The selling, distribution and administration costs are semi variable costs and include a fixed element of £7,230

REQUIRED

- (a) Prepare budgets (similar to the above) using the high low method if appropriate based on:
 - (i) 80% utilisation of operating capacity – 8,400 units (8 marks)
 - (ii) 100% utilisation of operating capacity – 10,500 units (6 marks)
- (b) Differentiate between direct and indirect costs (2 marks)
- (c) Explain, what is meant by each of the following cost behaviour patterns and provide an illustration of each:
 - (i) Semi-variable cost
 - (ii) Stepped – fixed cost (4 marks)

(Total 20 marks)

QUESTION 2

Vermaelen Limited makes three products all using the same type of labour and materials.

Labour hours are limited to 34,055 hours in the next period

The details for the three products are as follows:

	Aye £/unit	Bee £/unit	Cee £/unit
Selling price	320	280	360
Materials (£10 per kg)	140	65	87
Labour (£5 per hr)	55	75	115
Variable overheads	28	39	58

Total fixed overhead is £95,000 for the period

The company is committed to supplying the following for the period:

Product Aye 500 units	Product Bee 350 units	Product Cee 350 units
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The **maximum** estimated sales for each product for the period are as follows:

Product Aye 1,100 units	Product Bee 1,400 units	Product Cee 600 units
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REQUIRED

- (a) Calculate the order of priority for production and the optimum production schedule, for the next period in order to maximise profit. (10 marks)
- (b) Calculate the maximum **profit** for the period (4 marks)

Djouron Kalinski makes and sells three products (Exe, Whye and Zed).

The following data relates to these three products:

	Exe	Whye	Zed
Selling price per unit £	60	47	52
Variable costs per unit £	30	20	31

Fixed costs per month are £195,000

The company has a maximum sales demand for 3,200 units of Exe and 4,400 units of Whye per month.

The company is budgeting for a profit each month of £118,500

REQUIRED

- (c) Calculate how many units of Zed would have to be sold each month to achieve the budgeted profit (6 marks)

(Total 20 marks)

QUESTION 3

Boateng Chamakh is considering acquiring new machinery to expand its production capacity. Two alternative machines have been identified.

Machine Exe would cost £310,000 and machine Whye would cost £275,000.

Both machines would have a useful life of **six years**, with **no residual value**.

Operating cash flow savings, are forecast as follows:

Year	Machine Exe £	Machine Whye £
1	80,000	70,000
2	80,000	75,000
3	80,000	80,000
4	60,000	80,000
5	60,000	80,000
6	60,000	80,000

The company's cost of capital is 12% per annum.

The discount factors are as follows:

Year 1	0.893
Year 2	0.797
Year 3	0.712
Year 4	0.636
Year 5	0.567
Year 6	0.507

REQUIRED:

- (a) Calculate for each of **Machine Exe** and **Machine Whye**:
- (i) The payback period (4 marks)
 - (ii) The accounting rate of return (using the average investment amount) (6 marks)
 - (iii) The net present value (6 marks)
- (b) Provide a brief assessment of each machine based on your answer to part (a). Recommend which machine should be purchased. (4 marks)

(Total 20 marks)

QUESTION 4

The following information has been extracted from the financial records of Adebola Fryatt for the last year:

	Start of year £	End of year £
Stock	75,000	89,000
Trade debtors	90,000	64,000
Bank	32,000	24,000
Trade creditors	68,000	54,000

Additional information:

Sales totalled £900,000 of which 60% were on credit.

Purchases totalled £648,000, all of which were on credit.

REQUIRED:

- (a) (i) Calculate the current ratio and acid test (quick) ratio (4 marks)
- (ii) Give a brief explanation of the significance of each of the above ratios (4 marks)
- (b) Calculate the following additional ratios:
- (i) Stock turnover (number of times)
- (ii) Debtors collection (days)
- (iii) Creditors repayment (days) (6 marks)
- (c) Explain what is meant by the term 'working capital management' (2 marks)
- (d) Describe how the firm might improve its 'working capital cycle' (4 marks)

(Total 20 marks)

QUESTION 5

Muamba Lukaka makes a single product.

The following budgeted information is available for a period:

Standard direct labour hours per unit of production	4.5 hours
Production	1,400 units
Fixed overheads	£88,200

The actual results for the period were as follows:

Production	1,600 units
Fixed overhead	£92,500
Direct labour hours worked	7,450 hours

Note: Standards direct labour hours are used as the basis for the fixed overhead absorption

Required:

- (a) Calculate the standard fixed overhead absorption rate for the period and the total fixed production overhead variance (3 marks)
- (b) Calculate the following fixed production overhead variances for the period:
- (i) Expenditure
 - (ii) Volume
 - (iii) Capacity
 - (iv) Efficiency
- (7 marks)

Koren Ivanisovic makes a single product and uses a standard absorption costing system.

The production department budgets for a period included the following:

Production	27,000 units
Direct labour hours per unit	6.75

During the period the actual results were:

Production	27,800 units
Direct labour hours	192,384

REQUIRED:

- (c) Calculate the following production ratios for the period:
- (i) Efficiency
 - (ii) Capacity (usage)
 - (iii) Volume (activity)
- (8 marks)
- (d) Demonstrate the link between these three control ratios (2 marks)

(Total 20 marks)