

EXAMINATION NO. _____

THE PUBLIC ACCOUNTANTS EXAMINATION
COUNCIL OF MALAWI

2014 EXAMINATIONS

ACCOUNTING TECHNICIAN PROGRAMME

PAPER TC9: COSTING AND BUDGETARY CONTROL

MONDAY 2 JUNE 2014

TIME ALLOWED: 3 HOURS
9.00 AM – 12.00 NOON

INSTRUCTIONS

1. You are allowed **15 minutes** reading **time before the examination begins** during which you should read the question paper and, if you wish, make annotations on the question paper. However, you are not allowed, **under any circumstances**, to open the answer book and start writing or use your calculator during this reading time.
2. Number of questions on paper – 7
3. **FIVE** questions **ONLY** to be answered.
4. Each question carries 20 marks.
5. Show all your workings in order to gain full marks.
6. Marks will be awarded for clarity, correctness and logical presentation.
7. Use of non-programmable calculators is allowed.
8. Begin each answer on a fresh page.
9. **DO NOT OPEN THIS PAPER UNTIL YOU INSTRUCTED BY THE INVIGILATOR**

This question paper contains 8 pages.

This question paper must **not** be removed from the examination hall.

1. The following profit reconciliation statement has been prepared by the management accountant of ABC Ltd for the month of March:

		K
Budgeted profit		30,000
Sales volume profit variance		5,250A
Selling price variance		<u>6,375F</u>
		31,125
Cost variances:		
	A	F
	K	K
Material:		
Price	1,985	
Usage		400
Labour:		
Rate		9,800
Efficiency	4,000	
Variable overhead:		
Expenditure		500
Volume	<u>24,500</u>	
	30,485	<u>10,700</u>
		19,785A
Actual profit		<u>11,340</u>

The standard cost card for the company's only product is as follows:

		K
Materials	5 litres at K0.20	1.00
Labour	4 hours at K4.00	16.00
Variable overhead	4 hours at K1.50	6.00
Fixed overhead	4 hours at K3.50	<u>14.00</u>
		37.00
Standard profit		<u>3.00</u>
Standard selling price		<u>40.00</u>

The following information is also available:

- (1) There was no change in the level of the finished goods stock during the month.
- (2) Budgeted production and sales volumes for March were equal.
- (3) Stocks of materials, which are valued at standard price, decreased by 800 litres during the month.
- (4) The actual labour rate was K0.28 lower than the standard hourly rate.

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Required:

(a) Calculate the following:

- | | | |
|-------|--|----------------|
| (i) | The actual production/sales volume | 4 Marks |
| (ii) | The actual number of hours worked | 4 Marks |
| (iii) | The actual quantity of materials purchased | 4 Marks |
| (iv) | The actual variable overhead cost incurred | 2 Marks |
| (v) | The actual fixed overhead cost incurred | 2 Marks |

(b) ABC Ltd uses a standard costing system whereas other organizations use a system of budgetary control.

Explain why a system of budgetary control is often preferred to the use of standard costing in non-manufacturing environments. **4 Marks**

(TOTAL: 20 MARKS)

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2. Two products, X and Y, are produced from the same material. The material costs K950 per kg and the products appear after process 1.

Product X can be sold directly but Y needs further processing in Process 2. The following data relate to the most recent period:

	Materials K'000	Labour K'000	Overheads K'000	Total K'000
Process 1	1,440	210	150	1,800
Process 2	-	100	180	280
	<u>1,440</u>	<u>310</u>	<u>330</u>	<u>2,080</u>

	Sales (kgs)	Closing stock(kgs)	Sales value
Product X	300,000	150,000	K525,000
Product Y	450,000	-	K1,507,500

There were no materials on hand at the end of the period.

Required:

- (a) State **two** differences between joint products and by-products **4 Marks**
- (b) State any **two** accounting treatments of by-products **4 Marks**
- (c) Calculate the following:
 - (i) Unit selling price of product X and its market value at split-off point. **4 Marks**
 - (ii) Total joint costs to be apportioned between the two products and notional sales values at split-off point. **3 Marks**
 - (iii) Total cost of products X and Y using the sales value method of apportionment. **5 Marks**

(TOTAL: 20 MARKS)

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3. Prince Electronics Ltd makes and sells one product whose standard production cost per unit is as follows:

	K
Direct labour: 3 hours at K30 per hour	90
Direct materials: 4 kilograms at K35 per kg	140
Production overhead: Variable	15
Fixed	<u>100</u>
	<u>345</u>

Normal output is 160,000 units per month and this figure is used to calculate the fixed production overhead.

Costs relating to selling, distribution and administration are as follows:

Variable	20% of sales value
Fixed	K960,000 per month

The only variance is a fixed production overhead volume variance. There are no units in the finished goods stock at 1 May 2014. The fixed overhead expenditure is spread evenly throughout the year. The selling price per unit is K700.

For the month of May 2014, the number of units to be produced and sold are budgeted as follows:

Production	170,000
Sales	150,000

Required:

- (a) State any **three** arguments for absorption costing principles in a routine costing system of an organization over marginal costing. **6 Marks**
- (b) Prepare profit statements for the month of May 2014 using:
 - (i) Absorption costing **7 Marks**
 - (ii) Marginal costing **5 Marks**
- (c) Prepare a statement reconciling the absorption costing profit and marginal costing profit for the month of May 2014 as calculated in (b) above. **2 Marks**

(TOTAL: 20 MARKS)

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4. Z Ltd manufactures and sells three products with the following selling prices and variable costs:

	Product A (K/unit)	Product B (K/unit)	Product C (K/unit)
Selling price	3.00	2.45	4.00
Variable cost	1.20	1.67	2.60

The company is considering expenditure on advertising and promotion of Product A. It is hoped that such expenditure, together with a reduction in the selling price of the product, would increase sales. Existing annual sales volumes of the three products are as follows:

Product A	460,000 units
Product B	1,000,000 units
Product C	380,000 units

If K60,000 per annum was to be invested in advertising and sales promotion, sales of Product A at reduced selling prices would be expected to be:

590,000 units at K2.75 per unit
or 650,000 units at K2.55 per unit

Annual fixed costs are currently K1,710,000.

Required:

- State any **five** assumptions behind the technique of break-even analysis. **5 Marks**
- Calculate the current break-even sales revenue of the business. **8 Marks**
- Advise management of Z Ltd as to whether or not the expenditure on advertising and promotion, together with selling price reduction, should be introduced on Product A. **5 Marks**
- Calculate the required unit sales of Product A, at a selling price of K2.75 per unit, in order to justify the expenditure on advertising and promotion. **2 Marks**

(TOTAL: 20 MARKS)

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5. The management of Umodzi Ltd have been informed that the union representing the direct production workers at one of their factories, where a standard product is produced, is intending to call a strike. The accountant has been asked to advise the management of the effect of the strike on cash flow.

The following data has been made available:

	Week 1	Week 2	Week 3
Budgeted sales units	400	500	400
Budgeted production units	600	400	nil

The strike will commence at the beginning of week 3 and it is assumed that it will continue for at least four weeks. Sales at 400 units per week will continue to be made during the period of the strike until stocks of finished goods are exhausted. Production will stop at the end of week 2. The current stock level of finished goods is 600 units. Stocks of work-in-progress are not carried.

The selling price of the product is K60 per unit and the budgeted manufacturing cost is made up as follows:

	K
Direct materials	15
Direct wages	7
Variable overheads	8
Fixed overheads	<u>18</u>
	<u>48</u>

Direct wages are regarded as a variable cost. The company operates a full absorption costing system and the fixed overhead absorption rate is based upon a budgeted fixed overhead of K9,000 per week. Included in the total fixed overheads is K700 per week for depreciation of equipment. During the period of the strike direct wages and variable overheads would not be incurred and the cash expended on fixed overheads would be reduced by K1,500 per week.

The current stock of raw materials are worth K7,500; it is intended that these stocks should increase to K11,000 by the end of week 1 and then remain at this level during the period of the strike. All direct materials are paid for one week after they have been received. Direct wages are paid one week in arrears. It should be assumed that all relevant overheads are paid for immediately the expense is incurred. All sales are on credit, 70% of the sales value is received in cash from the debtors at the end of the first week after the sales have been made and the balance at the end of the second week.

The current amount outstanding to material suppliers is K8,000 and direct wage accruals amount to K3,200. Both of these will be paid in week 1. The current balance owing from debtors is K31,200, of which K24,000 will be received during week 1 and the remainder during week 2. The current cash balance at bank and in hand is K1,000.

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Required:

- (a) State any **three** advantages of preparing cash budgets. **3 Marks**
- (b) Prepare a cash budget for Umodzi Ltd for weeks 1 to 6. **15 Marks**
- (c) Give any **two** reasons why the reported profit figure for a period does not normally represent the amount of cash generated in that period. **2 Marks**
- (TOTAL: 20 MARKS)**

6. A company manufactures three components which are used in its finished product. The component workshop is currently unable to meet the demand for the components and is considering 'buying-in' from an outside manufacturer. The following data has been obtained:

	Component		
	A	B	C
Variable cost of production per unit (K)	6.00	8.00	14.00
Buy-in price per unit (K)	5.00	12.00	26.00
Machine hours per unit	1	0.5	2
Labour hours per unit	2	2	4

Required:

- (a) Give **four** situations where marginal costing can be used as a decision-making aid. **4 Marks**
- (b) State **two** advantages of using marginal costing as a decision-making aid. **4 Marks**
- (c) State which component should be 'bought-in' if the company is operating at full capacity. Give a reason for your decision. **2 Marks**
- (d) Calculate which **other** component should be 'bought-in' if:
- (i) production is limited to 4,000 **machine** hours per week; **6 Marks**
- (ii) production is limited to 4,000 **labour** hours per week. **4 Marks**

(TOTAL: 20 MARKS)

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7. (a) (i) State any **five** advantages of a standard costing system. **5 Marks**
- (ii) State any **two** disadvantages of a standard costing system. **2 Marks**
- (b) Define the following terms:
- (i) Direct costs **1 Mark**
- (ii) Prime cost **1 Mark**
- (iii) Conversion cost **1 Mark**
- (c) State and explain **two** methods used to separate fixed costs from variable costs in a semi-fixed cost. **4 Marks**
- (d) (i) Other than sales value method, state any **two** other methods that are commonly used to apportion joint processing costs to joint products that emerge from a single process. **2 Marks**
- (iii) Mention **four** ways of apportioning service department costs to production cost centers. **4 Marks**

(TOTAL: 20 MARKS)

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