TECHNICAL UNIVERSITY OF MOMBASA

School of business

DEPARTMENT OF ACCOUNTING AND FINANCE

UNIVERSITY EXAMINATIONS FOR DEGREE IN BACHELOR OF / COMMERCE/ BUSINESS ADMINISTRATION.

BAC 4203; MANAGEMENT ACCOUNTING

END OF SEMESTER EXAMINATIONS

SERIES; AUGUST 2019

TIME; 2 HOURS

Instructions;

Answer question one and any other two questions.

QUESTION ONE

Arena plc. requires 3,000 composite hockey sticks for use in a project for one of its most highly valued customers. Arena plc has never previously produced hockey sticks. However, management are currently deciding whether to purchase the hockey sticks from another company at a price of €/£193,000 or to produce the hockey sticks themselves.

A junior member of the accounts department has estimated that the costs incurred by Arena plc in producing 3,000 hockey sticks would be as follows:

		Note	Sh.
Material Carbon	10,000 kg	1	85,000
Material Kevlan	8,000 kg	1	88,000
Material Resin	6,000 kg	1	24,000
Skilled Direct Labour	85hrs.	2	3,900
Unskilled Direct Labour	110 hrs.	2	1,900
Depreciation of Equipment		11,000	
Fixed Overheads	3		20,000
			233,800

The following additional information is available in respect of the cost items listed above.

1. Arena plc. uses three types of materials in the production of its product. They already have sufficient stock on hand for the production of the hockey sticks. The following price data is available in respect of each of these raw materials:

	Carbon	Kevlan	Resin
Alpha			
		Sh. per kg	**Sh. per kg**
Original purchase price	8.5	11.0	4.0
Current purchase price	9.5	13.0	5.0
Realisable Value	7.0	10.5	nil

Arena plc. always maintains a stock of material carbon as it is used in virtually all of its production processes.

The stock on hand of material Kevlan was purchased several years ago for another project which was cancelled at short notice. Management does not have any use for material kevlan other than in the production of hockey sticks.

If the stock of material Resin is not used in the production of the sticks it will have to be disposed of at cost of sh. 0.80 per kg.

2. Skilled direct labourers are paid a fixed weekly wage and are currently under-utilised. It is expected that the hours of skilled labour required for hockey sticks will be met out of what is currently classified as idle time.

The unskilled direct labour relates to hours worked by casual employees who are employed as required and paid an hourly rate.
3. If the company decides to produce hockey sticks it is estimated that incremental fixed overheads incurred directly in respect of producing hockey sticks will amount to sh. 8,300
4. If the equipment is not required for the production of the hockey sticks, it may be hired out for sh. 1,500.

Required:

(a) On the basis of the financial information provided above, recommend whether Arena plc. should produce hockey sticks internally or purchase them from another company. Support your answer with relevant workings. **16 Marks**

(b) Suggest any four qualitative factors which Arena plc. should consider before arriving at a decision whether to produce the hockey sticks internally or source them externally. **4 Marks**

© Briefly explain other factors which should be considered before making the above decision. **(10 marks)**

QUESTION TWO

Procession ltd operates process costing system and manufactures one single product (the procixs) using raw material X.
The process involves continuous chemical reactions and hence cannot be halted to facilitate period end stock takes.
The following information relates to March 2007.

- Opening work-in- progress at 28th February-15,000units.
  -100% complete for materials sh.51,700
  -60% complete for labour sh.31,740
  -60% complete for overheadssh.13,380
  -All overheads are variable.
- During the month 40,000 units of Procixs were started.
- 100,000 kg of material X costing sh.106,400 were input to the process.
- 60,000 labour hours were worked at a cost of sh.93,000.
- The variable overhead incurred was sh.74,400.
- Normallossis10% of units started.
- Loss has a scrap value of sh.0.50 cent per unit and is not identified until the end of the process.
- 36,000 units were output to finished goods.

Closing stock of work -in-progress was12,000 units.
-100% complete for materials.
-60% complete for labour and overhead.

Required

(a)Prepare the process account for the month of March 2007.You may assume that Procession Ltd operates a FIFO stock management system.(13marks)
(b)Prepare the Abnormal Loss/Gain Account for the month of March2007.(2marks)
(c)Prepare the Scrap Account for the month of March2007.(2marks)
(d)Explain how abnormal gains and losses are treated in the calculation of equivalent units of production.

(3 marks).

QUESTION THREE

DAFO Ltd is a manufacturing company who are currently reviewing the costing arrangements for product OD35. During the first quarter of the year they sold 50,000 units of OD35 at €/£30 per unit. They produced 45,000 units of OD35 during the quarter and the following production cost information has been provided for the quarter:-

OD35	Per unit sh.	Total cost sh.
Direct materials	7.00	315,000
Direct labour	16.00	720,000
Production overhead	5.00	225,000

At the beginning of January, there is a stock of 10,000 units valued as follows:-

	Per unit sh.	Total cost sh.
Direct materials	6.50	65,000
Direct labour	16.25	162,500
Production overhead	5.00	50,000

Sales and administration overheads for the quarter are as follows:

	Sh.
Variable	55,000
Fixed	50,000

It is estimated that 40% of production overheads are variable, while the remainder are fixed.

Requirement:

(a) Prepare an income and expenditure for the quarter using:

i. absorption costing

ii. marginal costing (**14 Marks)**

(b) Prepare a note setting out the key advantages and disadvantages of both approaches.(**6 Marks)**

QUESTION FOUR

GELO ltd manufactures three types of radiators – standard, retro and modern. The budgeted standard costs of each product are detailed below:

	Standard Sh.	Retro sh.	Modern sh.
Direct materials	5.00	7.50	10.00
Direct Labour	5.00	10.00	8.00
Variable Overhead cost	5.00	8.00	12.00
Fixed Overhead cost	7.50	15.00	12.00
	22.50	40.50	42.00
Sales Price	27.00	48.00	50.00
Budgeted volumes (per quarter)	3,750	2,250	1,500

The following information has also been provided:

Direct materials are a specialist mild steel which is priced at sh. 10 per kg.

Fixed overhead costs are attributed on the basis of direct labour hours.

Production volumes are equal to sales volumes, with no stocks being held.

The purchasing manager has advised that due a problem with the normal supplier, it is likely that the specialist mild steel will be limited to 4,000kg in the incoming quarter.

Requirement:

(a) Calculate the total breakeven point in units for a quarter. **7 Marks**

(b) Using appropriate calculations, advise GELO Ltd on the optimum production plan detailing the mix of products that should be produced during the quarter in order to maximise profits in the context of the limited supply of specialist mild steel. **8 Marks**

(c) Prepare a brief note setting out the assumptions and limitations of cost-volume-profit analysis **5 Marks**

QUESTION FIVE

You have been provided with the following standard cost and production information for analysis:

Standard cost information

Direct materials 6kg @ sh. 10.00
Direct Labour 2 hours @ sh. 12.50
Total projected overheads sh. 840,000
Fixed 50%
Variable 50%

Projected level of activity is 60,000 units, which will be spread evenly throughout the year. The actual data for the month of March 2011 is as follows:

Production 4,800 units

Materials 28,000kg	sh.	273,000
Labour 10,000hrs	sh.	126,000
Overhead Variable	sh.	34,500
Fixed	sh.	36,000

Requirement:

(a) Calculate the following variances:
(i) Materials Price.
(ii) Materials Usage.
(iii) Labour Rate.
(iv) Labour Efficiency.
(v) Variable Overhead Expenditure.
(vi) Fixed Overhead Expenditure. **12 Marks**

(b) Standard costing can be used for control and performance measurement. Prepare a note describing different types of control and explaining the basic principle of performance management and its potential benefits to organisations. **8 Marks**