



# MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ACCOUNTING BANKING AND FINANCE

THIRD YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF COMMERCE

**BAC 300: MANAGEMENT ACCOUNTING1**

**DATE: 18/8/2021**

**TIME: 11.00-1.00 PM**

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## INSTRUCTIONS:

Answer question ONE and any other TWO questions

### QUESTION ONE (30 MARKS) (COMPULSORY)

- a) Explain the purpose of management accounting. (4 marks)
- b) Explain any four disadvantages of budgets. (4 marks)
- c) Explain any four reasons that a business person may have for holding stocks. (4 marks)
- d)
  - i. Assume that a company has an annual requirement of raw materials of 144,000 units, ordering costs of Sh.12,500 per order, purchase price per unit is sh.500 and annual holding costs are estimated at 20% of the purchase price. Calculate the Economic Order Quantity (EOQ). (3 marks)
  - ii. Calculate the number of orders needed per year. (3 marks)
- e) A company is planning to produce a certain product and the variable costs are estimated at sh.40 per unit. The fixed cost is Sh.240,000 and selling price is set at sh.80 per unit.
  - i. Calculate the Break-Even Point. (5 marks)
  - ii. If 60,000 units will be sold find the profit that will be made. (5 marks)
- f) Explain the assumptions of the Economic Order Quantity (EOQ) analysis. (5 marks)

## QUESTION TWO (20 MARKS)

Kikomi limited is a manufacturer of children garments. The sales vary seasonally and are higher in the month of May. The management wishes to prepare a cash budget from the period January through June 2017. The sales estimates are as follows:-

Month	Sale estimates (shs.)	Credit purchases (shs)
January	84,000	110,000
February	156,000	170,000
March	132,000	160,000
April	228,000	240,000
May	288,000	250,000
June	108,000	260,000

You are given the following additional information:-

1. Sales for December were shs.60,000 and purchases shs.120,000.
2. Credit sales are 70% and cash sales 30% of total sales
3. There is a time lag of one month between credit sales and its collection. No bad debts are expected.
4. Payments for purchases is 60% in the month of purchase and balance in the following month.
5. Monthly administration expenses are: shs.720.
6. As at January 2017, there was a cash balance of shs.1,200, 000.

### Required:

- a) Determine the amount of credit and cash sales for each month. (4 marks)
- b) Calculate payments relating to each month. (6 marks)
- c) Prepare a cash budget from the months January to June 2017. (10 marks)

## QUESTION THREE (20 MARKS)

- a) Explain what a standard cost is? (2 marks)
- b) Explain the meaning of a variance (2 marks)
- c) Briefly explain the meaning of the following as used in variance analysis:
  - i. Material usage variance (2 marks)
  - ii. Material price variance (2 marks)
  - iii. Wage efficiency variance (2 marks)
  - iv. Wage rate variance (2 marks)

- d) Calculate each of the above variances, using the following figures: (8 marks)

Actual hours worked	5,000 hours
Standard rate per hour	Sh.10
Actual wages paid	Sh.55,000
Standard hours allowed	4,850 hours
Standard price per kg	sh.2
Actual price per kg	sh. 1/50
Actual output	20,000units
Standard quantity allowed	16,000kg
Actual quantity used	15,000kg
Actual quantity purchased	16,500kg

#### QUESTION FOUR (20 MARKS)

- a) A hotel has 4 independent projects which have the following information: (10 marks)

Project	Cost	Present Value of Cash Inflows
A-accommodation	Shs.30m	Shs. 50m
B-beverages	Shs.35m	Shs. 53m
C-outside catering	Shs.50m	Shs. 93m
D-tents& chairs	Shs. 58m	Shs.90m

#### Additional Information:

- The company has a capital limitation of Shs.100m. the cost of capital is 9.5% and any surplus funds can be invested at 12% p.a return on investment in perpetuity.
- All the projects are indivisible.

#### Required:

Determine the projects that should be undertaken. (10 marks)

- b) A hotel intends to invest in either machine KX40 or KY50 for cooking. Each of these machines costs shs.200,000 and have an estimated economic life of 10 years and no scrap value. The cashflows for the two machines are as follows: (10 marks)

Year	KX40 Shs.	KY50 Shs.
1	40,000	60,000
2	50,000	40,000
3	30,000	50,000
4	10,000	30,000
5	20,000	20,000
6	30,000	18,000
7	15,000	14,000
8	10,000	8,000
9	5,000	3,000
10	30,000	30,000

Calculate the profitability index for each of the machines and advise the management on the machine to purchase. (10 marks)

**QUESTION FIVE (20 MARKS)**

A manufacturing company makes two types of products namely P and Q. The company uses two materials X and Y in the manufacture of these products. The following information is given for the year 2016:

i. **Budgeted sales**

<u>Product</u>	<u>Quantity</u>	<u>Price</u>
P	18,000	Ksh.65
Q	20,000	Ksh.80

ii. **Materials used:**

**Material**

	X	Y
Unit cost	Ksh.6	Ksh.3
Quantities used		
P	3	6
Q	5	4

Stocks were as follows:

Finished Product	Opening	Closing
P	3,000	1,500
Q	2,000	2,500
Material		
X	5,000	6,000
Y	4,000	3,000

**Required:** Prepare:

- a) Sale budget (3 marks)
- b) Production budget (7 marks)
- c) material usage in quantities budget (7 marks)
- d) Material purchase in quantity and value budget. (3 marks)