



MACHAKOS UNIVERSITY

University Examinations 2021/2022 Academic Year

SCHOOL OF BUSINESS, ECONOMICS AND HOSPITALITY AND TOURISM
MANAGEMENT

DEPARTMENT OF BUSINESS ADMINISTRATION AND FINANCE

THIRD YEAR FIRST SEMESTER EXAMINATION FOR

BACHELOR OF COMMERCE

BAC 300: MANAGEMENT ACCOUNTING1

DATE: 25/8/2022

TIME: 2.00-4.00 PM

INSTRUCTIONS

- Answer question **ONE (Compulsory)** and any other **TWO**

QUESTION ONE (30 MARKS)

- a) Explain the purpose of management accounting. (4 marks)
- b) Explain any three reasons that a business person may have for holding stocks. (3 marks)
- c) 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. Advice on the optimal order quantity for the company. (3 marks)
- ii. Calculate the number of orders needed per year. (3 marks)
- iii. Calculate the total relevant cost for the company. (3 marks)
- d) 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. (4 marks)
- ii. If 60,000 units will be sold find the profit that will be made. (5 marks)
- e) Explain the assumptions of the Economic Order Quantity (EOQ) analysis. (5 marks)

QUESTION TWO (20 MARKS)

a) From the information below, prepare a cash budget for the period from January to April.

Expected Sales		Expected Purchase	
	Shs		Shs
Jan.	60,000	Jan.	48,000
Feb.	40,000	Feb.	80,000
Mar.	45,000	Mar.	81,000
Apr.	40,000	Apr.	90,000

The wages to be paid to workers amount to Shs5,000 each month. Also, the bank balance on 1st January was Shs8,000. The management decided on the following:

- If the deficit fund is within the limit of Shs10,000, it is possible to make arrangements with the bank.
- If the deficit fund exceeds Shs10,000 but is within the limit of Shs42,000, the issue of debentures is preferred.
- If the deficit fund exceeds Shs42,000, the issue of shares is preferred (considering the fact that it is within the limit of authorized capital). (12

marks)

b) The following data relate to a given stock item:

Normal usage	1,300 per day
Minimum usage	900 per day
Maximum usage	2,000 per day
Lead time	15-20 days
EOQ	30,000

Calculate the various control levels.

(8 marks)

QUESTION THREE (20 MARKS)

a) ABC Co has a manufacturing capacity of 10,000 units. The flexed production cost budget of the company is as follows:

Capacity	60%	100%
Total production costs	Shs11,280	Shs15,120.

What is the budgeted total production cost if it operates at 85% capacity? (4 marks)

b) The following data pertains to the first week of a certain operation in June 2011:

Materials:

Actual Purchased	= 1,500 units @ Shs3.80 per unit
Actual usage	= 1,350 units
Standard usage	= 1,020 units @ Shs4.00 per unit

Direct Labor:

Actual hours	= 310 hours @ Shs12.10 per hour
Standard hours	= 340 hours @ Shs12.00 per hour

Required:

- i. Compare the variance whether favorable or unfavorable. (8 marks)
marks)
Material purchase, price variance and quantity variance.
Labor rate efficiency variance.
- c) Calculate each of the following variances, using the following figures: (8 marks)
 - i. Material usage variance (2 marks)
 - ii. Material price variance (2 marks)
 - iii. Wage efficiency variance (2 marks)
 - iv. Wage rate variance (2 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-accomodation	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	KY50
	Shs.	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) The following payoff matrix shows the potential profits and losses, in millions of shillings, which are expected to arise from launching four new products (P1, P2, P3, and P4) in five market conditions (M1, M2, M3, M4 and M5).

	Product			
	P1	P2	P3	P4
M1	15	3	1	7
M2	10	14	5	19
Market conditions M3	0	8	14	10
M4	-6	9	20	2
M5	17	2	-3	0

Required:

Evaluate the best decision using:

(12 marks)

- i. Laplace criterion.
- ii. Minimax regret criterion.
- iii. Maximin criterion
- iv. Hurwicz criterion. ($1-a=0.35$)

b) 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**

Product	Quantity	Price
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 production budget

(8 marks)