



MACHAKOS UNIVERSITY

University Examinations 2018/2019

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF BUSINESS ADMINISTRATION

FIRST YEAR SECOND SEMESTER EXAMINATION FOR

CERTIFICATE IN PROCUREMENT AND SUPPLY CHAIN MANAGEMENT

BUSINESS CALCULATIONS AND STATISTICS

DATE: 16/4/2019

TIME: 8.30-11.30 am

INSTRUCTIONS

ANSWER ALL QUESTIONS

QUESTION ONE (20 MARKS)

Maina who sells his goods at a margin of 25% had the following balances on 31st December 2003.

	Ksh.
Opening stock	50,000
Purchases	240,000
Closing stock	30,000
Carriage inwards	10,000
Returns outwards	15,000
Returns inwards	5,000

Determine Maina's gross profit for the period (20 marks)

QUESTION TWO (20 MARKS)

A colour TV set costs Ksh.37, 400 on hire purchase. A customer who pays cash is given 15% discount on the above price. John bought such a TV set on hire purchase and paid Ksh.15, 650 as down payment. He paid the balance in 15 equal monthly installments.

- a) How much did he pay per month?
b) How much would he have saved if he had bought the TV set for cash? (20 marks)

QUESTION THREE (20 MARKS)

- a) If 15 men can do a job in 45 days, how many men will be required to finish this job in 25 days? (5 marks)
- b) Kamau, Njoroge and Kariuki are partners in a business. They share profit and loss at the ratio of 5:4:3 respectively. If profit for the year 1996 was Ksh.846, 000. Calculate each partner's share. (5 marks)
- c) In his will Mr. Fadhili had shared his property as follows: $\frac{1}{4}$ to his eldest son, $\frac{1}{5}$ to each of his two sons (Alfred and Tom), $\frac{1}{6}$ to his surviving wife, $\frac{1}{9}$ to his only daughter and a balance to his younger brother. If the younger brother got Ksh.65, 000 worth of his property.
- Determine the original value of the estate
 - Calculate the amount each person got (10 marks)

QUESTION FOUR (20 MARKS)

- a) Convert the following fractions into percentage:
 $\frac{3}{4}$, $\frac{17}{20}$ and $\frac{7}{20}$ (6 marks)
- b) The price of an article Z is Ksh.3, 500. If this price increased by 12%. Determine its new price. (6 marks)
- c) The population of a country is 20 million at present. If the population increased by 5% each year for four successful years. Determine the population at the end of the fourth year. (8 marks)

QUESTION FIVE (20 MARKS)

- a) If Ksh.45, 000 is lent at 9% simple interest p.a, after how many years, will it earn interest of Ksh.12, 150? (5 marks)

b) Otieno borrowed a sum of money at 12% simple interest p.a. After 5 years he repaid Ksh.128, 000. Calculate the sum of money borrowed. (5 marks)

c) Joyce was a salesperson employed to sell product Z on a salary and commission basis. Her basic salary was Ksh.1, 800. She also received commission on sales as follows:

- 1.5% on the first Ksh.10,000
- 2% on the next Ksh.30,000
- 5% in excess of Ksh.30,000

During the month of January 1991, Joyce's total earnings amounted to Ksh.4, 000.

- i. How much did she sell in excess of Ksh.30, 000?
- ii. How many products of Z did he sell if each product was costing Ksh.8, 625

(10 marks)