

TECHNICAL UNIVERSITY OF MOMBASA
SCHOOL OF BUSINESS
DEPARTMENT OF MANAGEMENT SCIENCES

CERTIFICATE IN STORES MANAGEMENT
CERTIFICATE IN SALES MANAGEMENT
CERTIFICATE IN BUSINESS MANAGEMENT
CERTIFICATE IN FRONT OFFICE ORGANIZATION

CERTIFICATE IN HUMAN RESOURCE MANAGEMENT
(CSTM, CSM, CBM, CHRM, CFOO)

BAC 1103: BUSINESS CALCULATIONS

END OF SEMESTER EXAMINATIONS

SERIES: APRIL 2016

TIME: 2 HOURS

INSTRUCTIONS:

- This paper consists of Sections **A** and **B**.
- Section **A** is Compulsory. Answer any **TWO** questions in Section **B**.
- Mobile phones are not allowed into examination room.
- Cheating leads to disqualification.
- This paper consists of Three printed pages.*

SET A

Question 1

a) Find the missing figures:-

| | Selling Price (S.P) sh. | Cost Price (C.P) sh. | Profit (S.P – C.P) sh. |
|-------|------------------------------------|---------------------------------|-----------------------------------|
| (i) | 4645 | 1989 | - |
| (ii) | 7274 | 1275 | - |
| (iii) | 10231 | - | 1500 |
| (iv) | - | 6174 | 2361 |
| (v) | - | 4184 | 1351 |

(5mks)

b) John, Kimani and Nasambu carried out a job and they were paid 4750. John received $\frac{2}{8}$ and Kimani $\frac{3}{16}$ of the total amount. The balance was received by Nasambu. Find out:

- i. Fraction of Nasambu's share
- ii. The amounts received by each them. (5mks)

c) The wages paid by a company to the workers amounted to sh. 978,484 for the year 2014. If the number of workers paid were 1582, what was the average paid to a worker. (Answer to the nearest shilling) (3mks)

d) A man pays shs. 102,600 per year as rent and rates. If the rates are two seventh of the rent, how much does he pay for the rent? (2mks)

e) The value of a house was shs. 950,000 in 2014. It rose by 15.5% in 2015 and later dropped by 25% in 2016. Find its value in:-

- (i) 2015

(ii) 2016 (5mks)

f) A motor vehicle was brought for sh. 270,000. It is to be depreciated at 18% p.a. Find:-

- (i) The Net Book value after 3 years
- (ii) The scrap value after 3 years (5mks)

g) A company sets up a sinking fund invests sh. 20,000 each year for 6 years at 12%. What will the fund be worth after 6 years?

Question Two

a) i. Find the value of the 14th term and the sum of the first 18 terms of the following progression:-

4, 8, 16, 32, 64...

ii. A firm rents its premises and the rental agreement provides for a regular annual increase of sh. 2650. If the rent in the first year is sh. 8,500, what is the rent in the 15th year?

b) What is the present value of:

- (i) sh. 100,000 p.a received for 10 years at 10%?
- (ii) sh. 100,000 p.a received for 10 years, commencing in 5 years time at 10% (20mks)

Question Three

a) A manufacturer makes two products i.e. Alpha and Beta. The cost of making 10 units of Alpha and 5 units of Beta is sh. 500. The cost of making 4 units of Alpha and 7 units of Beta is shs. 440. The manufacturer makes a profit of 20% and 15% on each unit of Alpha and Beta respectively.

- (i) Express the above costs of making one unit of Alpha and Beta
- (ii) Calculate the selling price of one unit of Alpha and Beta (10mks)

b) Kimali sells goods on commission basis for a Mombasa firm. Commission is paid on sales as follows in addition to his monthly salary of sh. 10,000. On the first sh. 50,000 of

sales: Nothing on the next shs. 100,000 of sales 5%, on the balance of sales 7%. He sold goods worth 350,000 during December 2015. Calculate his total income for that month.

(10mks)

Question Four

a) A Microwave set costs sh. 50,000 on hire purchase. A customer who pays cash is given 20% discount on the above price. Omar bought such Microwave on hire purchase and paid sh. 8000 as a down payment. He paid the balance in 10 annual installments.

(i) How much did he pay per month?

(ii) How much would he have saved if he had bought the Microwave for cash?

(10mks)

b) Abu plans to buy a motor car after 3 years. The motor car is expected to cost him sh. 220,000. He deposits sh. 80,000 at the beginning of the first year and sh. 40,000 at the beginning of the second year. Calculate the amount which should be deposited at the beginning of the third year if compound interest is paid at the rate of 8% p.a, in order to enable him to buy the motor car.

(10mks)

Question Five

a) A Kenyan businessman imported 35,000 watches from Dubai (U.A.E) at cost of 30 U.A.E Dirhams per watch. He also incurred the following additional expenses: - custom duty in Ksh. of 15%, Ksh. 120,000 for freight and Ksh. 60,000 Insurance charges. (1 UAE Dirham = 16.7795 Kshs.) Calculate:

(i) Total cost of the consignment in Kenya shillings

(ii) Selling price per watch if profit per watch is 13.2% on cost in Kenya.

(10mks)

b) i. A room is 7m long, 6m wide and 3.5m high. It has doors each 1.5 m wide and 2.5m high and one window 1.5m wide and 1m high. Find out the cost of painting the walls if cost per square meter is sh. 40

(5mks)

ii. A rectangular tank contains some liquid. The tank is 4m long, 3m wide and 2m high. The liquid sells at sh. 10.5 per cm^2 . Find out the value of the liquid contained in the tank.

(5mks)