

Name _____

Index No. _____

1909/102

Candidate's Signature _____

1916/102

BUSINESS CALCULATIONS AND STATISTICS

Date _____

July 2014

Time: 3 hours



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THE KENYA NATIONAL EXAMINATIONS COUNCIL

**CERTIFICATE IN ROAD TRANSPORT MANAGEMENT
CERTIFICATE IN MARITIME TRANSPORT OPERATIONS**

BUSINESS CALCULATIONS AND STATISTICS

3 hours

INSTRUCTIONS TO CANDIDATES

Write your name and index number in the spaces provided at the top of this page.

Sign and write the date of the examination in the spaces provided above.

This paper consists of TWENTY FOUR questions in TWO Sections; A and B.

Answer ALL the questions in the spaces provided in this question paper.

Marks to each part of a question are as indicated.

Show ALL your workings.

Do NOT remove any pages from this booklet.

Candidates should answer the questions in English.

For Examiner's Use Only

Section	Question	Maximum Score	Candidate's Score
A	1 - 20	40	
B	21	14	
	22	15	
	23	14	
	24	17	
Total Score			

This paper consists of 24 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

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Turn over

SECTION A (40 marks)

Answer ALL the questions in this Section in the spaces provided after each question.

1. A green grocer bought three 90 kg bags of potatoes and two 50 kg bags of carrots. He sold the potatoes at Ksh 48 per kg and the carrots at Ksh 42 per kg. Calculate his total sales. (2 marks)

2. The cost of a table is Ksh 150 more than the cost of three chairs. Calculate the cost of a chair, given that two tables cost Ksh 8,700. (2 marks)

3. Fatuma spends $\frac{1}{5}$ of her salary on house rent and $\frac{2}{5}$ of the remainder on household expenses. Calculate the amount she spends on household expenses if her net salary is Ksh 12,500. (2 marks)

4. A gas cooker is sold at Ksh 22,500 after a trade discount of 25%. Calculate the marked price of the gas cooker. (2 marks)

5. John bought eggs at Ksh 240 per 30 eggs. He later sold them at Ksh 900 per 100 eggs. Calculate his profit as a percentage on the cost price i.e. the mark-up. (3 marks)

6. Hassan earns a basic salary of Ksh 16,000 per month. In the month of February, 2011, he worked for 25 hours overtime and was paid at Ksh 100 per over time hour. He is taxed at the rate of 10% of his gross earnings. Calculate his net salary for the month. (3 marks)

7. Amandi bought a sofa set on hire purchase terms. The hire purchase price of the sofa set was Ksh 90,000. He paid a deposit of 15% of the hire purchase price. The balance was to be paid in 12 equal monthly instalments. Calculate the amount of each monthly instalment. (2 marks)

8. A tourist who had visited Kenya had Ush 240,000 and SA Rands 13,400. Calculate the total amount of money that he had in Kenya shillings.
Take 1 Ksh = Ush 27
1 SA Rand = Ksh 9 (3 marks)

9. Determine the next two terms in the following sequence:
125, 25, 5, 1 _____, _____ (2 marks)

10. Allan wishes to conduct a research that would enable him construct the simple price index number of tyres. State **two** methods that he may use to construct this index. (2 marks)

11. Highlight **two** rules to be followed in the construction of a table. (2 marks)

12. State **two** classes of sources from which statistical data may be obtained. (2 marks)

13. Highlight **two** limitations of using statistics in business decision making process. (2 mark)

16. Distinguish between Paache's and Laspeyres index numbers. (2 marks)

17. The cost of timber (c) is directly proportional to the length (l) and the thickness (t). Write an equation that relates c, l and t. (1 mark)

18. State two disadvantages of using mode as a measure of central tendency. (2 marks)

19. The average sales in a retail shop in one week was Ksh 60,000. In the next 3 weeks, the average sales increased at the rate of 5% of the previous week. Determine the average sales at the end of the 3rd week. (2 marks)

20. Explain the meaning of the term 'systematic sampling' as used in statistics. (1 mark)
