THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN CATERING AND ACCOMMODATION MANAGEMENT

MODULE I

FOOD AND BEVERAGE PRODUCTION, NUTRITION AND MATHEMATICS

3 hours

INSTRUCTIONS TO CANDIDATES

You should have the following for this examination:
Answer booklet;
Mathematical tables/non-programmable silent electronic calculator;
This paper consists of THREE sections; A, B and C.
Answer ALL questions in sections A and B.
Answer question 21 and any other TWO questions from section C.
Answers to the questions must be written in the answer booklet provided.
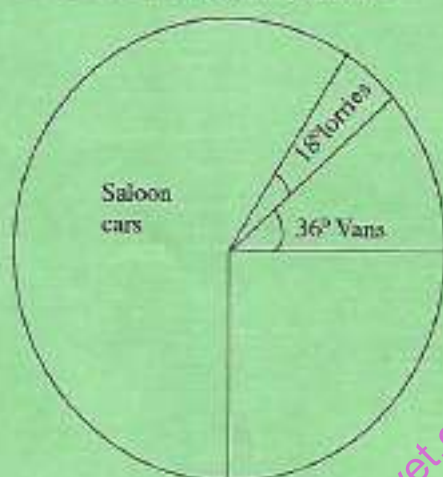**Candidates should answer the questions in English.**

This paper consists of 5 printed pages.

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

SECTION A: MATHEMATICS (30 marks)

Answer ALL questions in this section.

1. The budget for a college in a given year was sixty one million twenty three thousand and twenty two shillings. The government grant to the college in the year was forty eight million, seven hundred and eighty eight from the budget and the rest of the money was to be raised by the students. Determine the amount contributed by the students.

(3 marks)

2. Figure 1 shows a pie-chart that represent the number of vehicles that passed through a toll station during a peak hour. If the number of vans were 240, determine the number of saloon cars that passed through the station.

(3 marks)

3. A tank is in the form of a cuboid of length 1.01 m, width 82 cm and height 940 mm. Determine to the nearest whole number the amount in litres it would hold when full.

(3 marks)

4. A kiosk owner bought 10 trays of eggs at Ksh 280 per tray from a poultry farm. On the way back 80 eggs broke and the remaining were sold each for Ksh 12. Determine the percentage loss given that a tray contains 30 eggs.

(3 marks)

5. A three digits number is formed randomly from the digits 2,4,and 7 without any of them occurring more than once. Write down all the possible numbers formed.

(3 marks)

6. The equation of a straight line is given $a - x - \frac{3}{5}y = 2$.

   (a) Express the equation in the form $y = mx + c$, where m and c are constants.

(2 marks)

   (b) Determine the x - intercept.

7. The mean of a given set of numbers is 16. If the numbers are 9,12, 14, x, $x+2$, 20 and 23, determine the value of x. (3 marks)

8. The numbers X, Y and Z are such that $X:Y = 5:7$ and $Y:Z=2:3$. Determine the ratio $X:Z$. (3 marks)

9. John, a county employee earns a basic salary of Ksh 48,000 per annum. In addition, he receives the following monthly allowances; house allowance of Ksh 15,000, medical allowance of Ksh 2,808 and travelling allowance of Ksh 4,000. Given that Ksh 13,500 is deducted from his income every month as income tax, determine his monthly net pay. (3 marks)

10. A public opinion specialist company opted to use sampling to carry out a survey. State **three** reasons for using the method. (3 marks)

SECTION B: FOOD SCIENCE AND NUTRITION (30 marks)

Answer ALL the questions in this section.

11. Explain the meaning of each of the following terms used in Nutrition:

    (a) Food; (1 mark)

    (b) Vitamins; (1 mark)

    (c) Under nutrition. (1 mark)

12. Identify the **three** types of carbohydrates present in food. (3 marks)

13. State **three** properties of acids. (3 marks)

14. State **three** symptoms of a person suffering from scurvy. (3 marks)

15. Identify **three** roles that water plays in the body. (3 marks)

16. Using an arrow, match the following pH levels with their respective state:

pH	state
7	neutral
0	alkaline
14	high level of acidity

(3 marks)

17. Highlight **three** characteristics of enzymes.

(3 marks)

18. Identify **one** role of each of the following parts of the mouth in digestion:

(a) teeth; (1 mark)

(b) tongue; (1 mark)

(c) salivary glands. (1 mark)

19. Identify **two** functions of each of the following food additives:

(a) emulsifiers; (1 mark)

(b) stabilizers; (1 mark)

(c) thickness. (1 mark)

20. Explain **three** requirements for prevention of food poisoning when handling food.

(3 marks)

SECTION C: FOOD AND BEVERAGE PRODUCTION (40 marks)

Answer Question 21 and any other TWO questions from this section.

21. (a) Differentiate between each of the following terms as used in cooking:

    (i) Roux and sabayon; (2 marks)

    (ii) Macedoine and Mirepoix; (2 marks)

(b) Highlight **six** rules to observe when preparing and cooking vegetables to prevent loss of nutrients.

(6 marks)

22. (a) Highlight **three** healthy eating options to observe when preparing and cooking fish.

    (3 marks)

    (b) Outline the procedure for preparing and cooking scotch eggs. (12 marks)

23. (a) Different between a bisque and a bouillabaisse. (4 marks)

    (b) Identify **five** features to look for when buying a chopping board. (5 marks)

    (c) Explain **three** ways of presenting egg mayonnaise for service in food production.

    (6 marks)

24. (a) Identify **four** basic condiments used in catering establishments. (2 marks)

    (b) Highlight **five** advantages of using stewing as a method of cooking. (5 marks)

    (c) Outline the procedure for preparing a basic white sauce. (8 marks)

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