2802/102
CATERING PREMISES, EQUIPMENT
AND MATHEMATICS
June/July 2019
Time: 3 hours

THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN FOOD AND BEVERAGE MANAGEMENT

MODULE I

CATERING PREMISES, EQUIPMENT AND MATHEMATICS

3 hours

INSTRUCTIONS TO CANDIDATES

You should have the following for this examination:
    Answer booklet;
    Mathematical tables;
    Non-programmable scientific calculator.
*This paper consists of **TWO** sections; **A** and **B**.*
*Answer question **ONE (1)** and any other **THREE** questions in section **A** and question **SIX (6)** and any other **THREE** questions from section **B**, in the answer booklet provided.*
Maximum marks for each part of a question are as indicated.
Candidates should answer the questions in English.

This paper consists of 4 printed pages.

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

   **Turn over**

SECTION A: CATERING PREMISES (50 marks)

*Answer question ONE (1) and any other THREE questions from this section.*

1. (a)   Explain **one** disadvantage of each of the following portable fire extinguishers:

    (i)   water (red);   (2 marks)
    (ii)   foam (cream).   (2 marks)

    (b)   Highlight **four** qualities of a good kitchen floor.   (4 marks)

    (c)   Differentiate between direct lighting and indirect lighting system.   (4 marks)

    (d)   Outline the procedure of cleaning a deep freezer.   (4 marks)

    (e)   Explain **four** details contained in tenancy agreement.   (4 marks)

    period or time staying.
    payments

2. Explain **five** requirements of a well built kitchen.   (10 marks)

3. (a)   Explain **four** ways of preventing cuts and scratches from cutting blades on machines in
          the kitchen.   (4 marks)

    (b)   Highlight **six** ways of preventing flies in the kitchen.   (6 marks)

4. (a)   Explain **three** catering premises legislation laws in relation to each of the following:

    (i)   ventilation;   (3 marks)
    (ii)   lighting.   (3 marks)

    (b)   Elaborate on **two** disadvantages of incineration method of waste disposal.   (4 marks)

5. (a)   Distinguish between stopcock and ball valve.   (4 marks)

    (b)   As a manager of a first class establishment, explain to your staff **three** reasons for
          preventive maintenance.   (6 marks)

SECTION B: MATHEMATICS (50 marks)

Answer question SIX (6) and any other THREE questions from this section.

6. (a) If Zawadi spends Ksh 1,800 a day, her money would last for 36 days. Determine the ratio of decrease in the number of days if the expenditure is increased by Ksh 900 per day. (4 marks)

(b) A college budget for a year is sixty one million twenty three thousand and twenty two shillings. The government grants to the college is forty three million seven hundred and seventy eight, while the rest is raised from the students. Determine the amount collected from the students. (4 marks)

(c) Figure 1 shows a pie-chart that represents the number of vehicles that passed through a toll station between 7.00 am to 8.00 am. If the vans were 24, determine the number of cars that passed through the station. (4 marks)
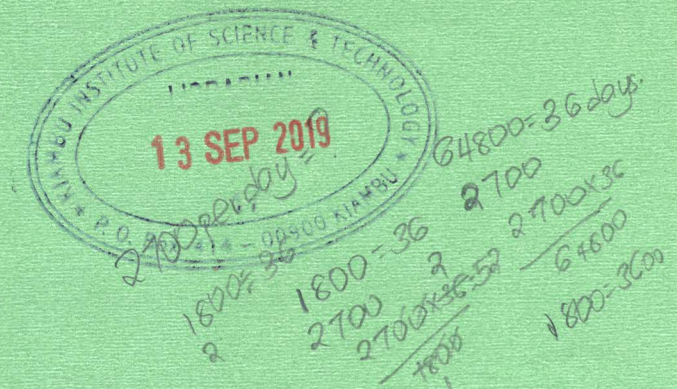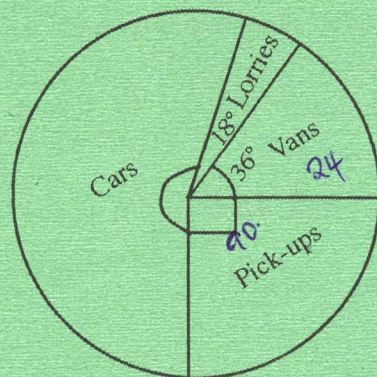
(d) A milk storage tank is in form of a cuboid of length 1.01 m, width 82 cm and height 94 cm. Determine the amount of milk in litres it would hold when full. (4 marks)

(e) A tray of eggs contains 30 eggs. A kiosk owner bought 7 trays of eggs at Ksh 300 per tray. On the way to the kiosk 40 eggs broke. The remaining were sold for Ksh 12 each. What was the percentage loss? (4 marks)

7. (a) The following information was extracted from the books of Best Tops Traders for the year ending 31st December 2015.

Opening stock	Ksh 320,000
Closing stock	Ksh 180,000
Rate of stock turnover	7 times

Calculate the cost of sales. (4 marks)

(b) The area of a square is 576 cm². Determine the area of a rectangle which has the same perimeter as the square if its width is 16 cm. (6 marks)

8. Table 1 shows marks distribution in a test obtained by students.

Marks	1-5	6-10	11-15	16-20	21-25	26-30
No. of students	3	3	4	5	3	2

Calculate:

   (i)   the mean;   (4 marks)

   (ii)   the standard deviation.   (6 marks)

9. (a) A three digits number is formed randomly from the digits 2, 5 and 6 without any of them occurring more than once.

   (i)   Write the possible number formed from this arrangement.   (3 marks)

   (ii)   What is the probability that the number formed is even?   (2 marks)
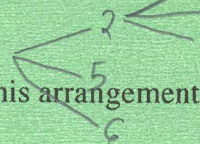
(b) (i) Solve for y in the equation $1 - \frac{y}{2} - 2\left(\frac{y-3}{2}\right) = 0$.   (3 marks)

   (ii)   Determine the ratio $x:y$ in the equation $2x - 5y = 0$.   (2 marks)

10. (a) Given the equation $x + \frac{3}{4}y = {}^-2$,

   (i)   express it in the form of $y = mx + C$, where m and C are constants.

                                                                   (3 marks)

   (ii)   state the x and the y intercept.   (3 marks)

(b) Without using a calculator, evaluate

$${}^6P_3 \quad - \quad {}^5P_3.$$

                                                                      (4 marks)
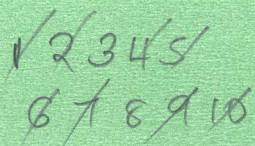
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