

2802/102

**CATERING PREMISES, EQUIPMENT
AND MATHEMATICS**

June/July 2018

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

*This paper consists of **TEN** questions in **TWO** sections; **A** and **B**.*

*Answer question **ONE** and any other **THREE** questions in section **A** and question **6** and any other **THREE** questions from section **B**, 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: CATERING PREMISES (50 marks)

Answer question **ONE** and any other **THREE** questions in this section.

1. (a) Explain the meaning of each of the following terms:
- (i) environmental hygiene. → care given to the surrounding areas (2 marks)
 - (ii) pest control. (2 marks)
- (b) Highlight **four** details contained in tenancy agreements. → Duration of stay.
→ Name of tenant. (4 marks)
- (c) Differentiate between direct lighting and indirect lighting. → hit on something then bounces back. (4 marks)
- (d) Identify **four** factors to consider when selecting a location of catering premises.
→ Security → Competition. (4 marks)
→ Market
→ Availability of surplus goods.
- (e) Outline the procedure of cleaning a deep freezer. → Rinse with cold water.
→ let it dry.
→ Clean warm. (4 marks)
2. (a) Explain **three** advantages of indirect water supply system in a catering establishment. (6 marks)
- (b) Distinguish between a stop lock and ball valve. (4 marks)
3. (a) Highlight **two** factors to consider when using gas to avoid explosion. (2 marks)
- (b) Explain **four** safety precautions taken when operating electric machines in the kitchen to avoid accidents. → Operator should be the one controlling the machine. (8 marks)
→ Ensure all the adjustable parts are fixed appropriately before use.
4. (a) Outline the first aid procedure given to a chef with a cut on the finger. (4 marks)
- (b) Describe **three** causes of accidents in the kitchen. → Poor lighting in the kitchen. (6 marks)
5. (a) State **two** advantages of preventive maintenance of a catering premises. (2 marks)
- (b) Discuss **two** disadvantages of ocean dumping as a waste disposal method. (4 marks)
- (c) Explain **two** advantages of incineration method of waste disposal. (4 marks)

SECTION B: MATHS (50 marks)

Answer question SIX and any other THREE questions in this section.

1 → 25
4
1 × 9 = 1000g
- 250

6. (a) A business woman packed 160 kg of porridge flour into 250 grammes packets. Each packet was sold at Ksh.25. Determine the amount of money realized if all the packets are sold. (4 marks)
- (b) A farmer planted 3600 flower seedlings in a square arrangement. Determine the number of rows of seedlings that were planted. $4 \sqrt{3600}$ (4 marks)
- (c) If the total cost of preparing one kilogram cake is Ksh.2,400, determine the percentage profit, if the cake is sold for Ksh.3,000. (4 marks)
- (d) In figure 1, ABD is an isosceles triangle and BCD is a semi-circle. Given AE = 40 cm and BD = 0.28 m, determine the area of figure ABCD in cm². (4 marks)

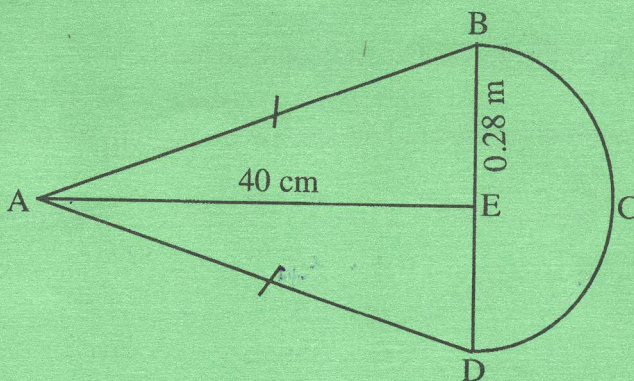


Figure 1

$23 \times \frac{1}{a}$
 7
 $1 \times 22 \times 0.28$
 7

145.5
40 → 47.75
10 → 48.5
30 →

- (e) The mean mass of 40 students is 47.75. If the mean mass of the first ten students is 48.5, determine the mean mass of the remaining 30 students. (4 marks)

7. (a) In a given year the number of female students admitted into a catering course were 165. The ratio of female to male was 3:2. Determine:

- (i) the total number of students admitted. ≈ 275 (2 marks)
- (ii) the difference between the number of female and male students admitted. (2 marks)

110
 165
 $3:2$
 3×165
 5
 2×165
 5
 $22 \times 165 = \frac{3}{5}$
 $66 \times \frac{5}{3}$
 110

$100 \rightarrow 2400$
 $\rightarrow 600$

$\frac{3}{5} = 165$
 $\frac{5}{5} = ?$
 $100 \rightarrow 2400$
 $\rightarrow 3000$

- (b) **Figure 2**, shows a pie-chart representing monthly expenditure of a student. Use it to answer the questions that follows:

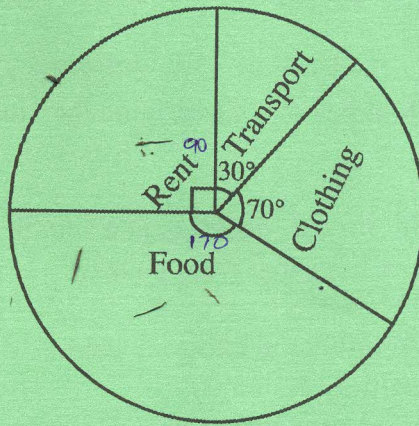


Figure 2

If he spent Ksh 4,500 on rent, determine:

$$\frac{90 \times 4500}{360}$$

- (i) how much the student spends on transport. (2 marks)
- (ii) how much does the student spends on food more than on clothing. (4 marks)

8. (a) Solve for x in the equation

$$\frac{x+3}{3} - \frac{x-3}{4} = \frac{1}{12}$$

$$13 \times \frac{5}{3} - \frac{2-3 \times \frac{1}{2}}{4} = \frac{1}{12}$$

$$5 - 2 - 3$$

(4 marks)

- (b) The equation of a straight line is given as $\frac{1}{3}x + \frac{1}{4}y = \frac{1}{12}$

Determine:

- (i) its gradient. (3 marks)
- (ii) the x-intercept. (3 marks)

9. (a) The following is a set of marks obtained by eight students in a test 60, 79, 67, 63, 81, 54, 56 and 57.

Determine:

- (i) the mean mark to the nearest whole number. (2 marks)
- (ii) the mean deviation of the marks. (4 marks)

- (b) In a shooting contest, the probability of Akinyi and Rono hitting the target are 0.4 and 0.2 respectively.
- (i) draw a probability tree diagram to show all the possible outcomes. (2 marks)
- (ii) determine the probability of both hitting the target. (2 marks)

10. (a) Complete the table 1 below of curve $y = x^2 + 2$ for $0 \leq x \leq 5$.

x	0	1	2	3	4	5
y	2	3	6	11	18	27

Table 1

(3 marks)

- (b) (i) On the grid provided on the back page of the answer booklet, draw the graph $y = x^2 + 2$ in the range $0 \leq x \leq 5$. (5 marks)
- (ii) From the graph determine the value of y when x is 3.5. (2 marks)

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