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**ICT, MATHEMATICS AND
ENTREPRENEURSHIP**

Oct./Nov. 2017

Time: 3 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

CRAFT CERTIFICATE IN BAKING TECHNOLOGY ✓

CRAFT CERTIFICATE IN PETROLEUM GEOSCIENCE

CRAFT CERTIFICATE IN FASHION DESIGN AND GARMENT MAKING TECHNOLOGY

CRAFT CERTIFICATE IN FOOD AND BEVERAGE PRODUCTION SALE AND SERVICE ✓

CRAFT CERTIFICATE IN CATERING AND ACCOMMODATION OPERATIONS

CRAFT CERTIFICATE IN FOOD PROCESSING AND PRESERVATION TECHNOLOGY

CRAFT CERTIFICATE IN SCIENCE LABORATORY TECHNOLOGY ✓

MODULE I

ICT, MATHEMATICS AND ENTREPRENEURSHIP

3 hours

INSTRUCTIONS TO CANDIDATES

You should have the following for this examination:

Answer booklet;

Scientific calculator fx-82 (non Programmable)/ Mathematical table.

This paper consists of TWO sections A and B.

Section A and B have 10 and 6 questions respectively.

Answer ALL questions in section A and questions 11, 12, and 13 and ONE other question from section B in the answer booklet provided.

Maximum marks for each part of a question are 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.**

SECTION A (40 marks)

Answer ALL the questions in this section.

1. (a) List **two** examples of cursor movement keys in the computer keyboard. (2 marks)
(b) Outline **two** advantages of an off-the-shelf software. (2 marks)
2. Highlight **four** benefits that an organization may derive from setting up a local area network (LAN). (4 marks)
3. By using illustrations, explain each of the following page orientation styles used in word processing:
(a) portrait; (2 marks)
(b) landscape. (2 marks)
4. Outline the procedure of shutting down a computer. (4 marks)
5. (a) Evaluate:
(i) $-8 + 2$;
(ii) -18×-23 . (2 marks)
(b) If 1 litre = 1.76 pints and 8 pints = 1 gallon, determine the number of litres in 30 gallons. (2 marks)
6. The equation of a straight line is given by:
$$5x + 2y = 8$$

Determine the:
(i) y-intercept;
(ii) x-intercept. (4 marks)
7. For the following set of data:
$$5, 3, 4, 3, 8, 4, 7, 2, 3, 7, 5, 13, 5, 3$$

Determine the:
(a) mode;
(b) mean. (4 marks)
8. Differentiate 'innovation' from 'creativity' as used in entrepreneurship. (4 marks)
9. State **four** non-monetary rewards that may be provided to motivate the employees of an organization. (4 marks)
10. Outline **four** indicators of a good business plan. (4 marks)

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SECTION B (60 marks)

Answer questions 11, 12, and 13 and any other ONE question from this section.

11. (a) Table I shows data maintained by the patron of the Debate Club in Leo College using a database.

Table I

First Name	Membership Number	Position	Registration fee (Ksh)
Ann	080	Member	500.000
Brian	081	Secretary	500.000
Joseph	088	Chairperson	500.000
Mary	040	Member	500.000
Barbra	039	Treasurer	500.000
James	017	Member	500.000

- (i) State the number of records in the table.
 (ii) Identify the appropriate field to be used as the primary key, giving a reason for the answer.
 (iii) Explain the appropriate data type for each of the following fields:
 I. membership number;
 II. registration fee. (7 marks)

- (b) Outline **three** differences between 'super computers' and 'mainframe computers'. (6 marks)

- (c) Highlight **two** advantages of e-commerce. (2 marks)

12. (a) A machine costs US\$ 5,000. Given that the exchange rate between US\$ and Ksh is 1 US\$ = Ksh. 84, calculate the cost of the machine in Ksh. (2 marks)

- (b) In a joint investment, A, B and C made a profit of Ksh. 600,000 in a certain year. If they shares the profit in ratio A:B:C = 5:3:4, calculate the amount that each got. (7 marks)

- (c) Determine the area of each of the following:
 (i) a triangle of sides 5 cm, 12 cm and 13 cm; *add*
 (ii) a semi-circle of radius 18 cm. (6 marks)

Handwritten notes:
 $\frac{1}{3} \times \frac{22}{7} \times 18^2$
 $\frac{1}{2} \times 5 \times 12$

Handwritten note: 0/14/18

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13. (a) Outline **four** benefits that may be associated with entrepreneurship development in a country. (4 marks)
- (b) Explain **three** reasons that make the partnership deed important in a partnership form of business. (6 marks)
- (c) Highlight **five** benefits that a business enterprise may derive from effective communication. (5 marks)
14. (a) Explain the function of each of the following folders used in e-mails:
- (i) drafts;
- (ii) spam;
- (iii) trash. (6 marks)
- (b) (i) Define the term 'mail merge' as used in word processing.
- (ii) Explain **two** files created during the mail merge process. (6 marks)
- (c) Highlight **three** uses of a spreadsheet in a college. (3 marks)
15. (a) (i) Evaluate
- $${}^4P_3 \times {}^{10}C_3$$
- (ii) A committee of two women and three men is to be selected from eight men and six women. Determine the number of ways that the committee can be formed. (5 marks)
- (b) If Y is inversely proportional to X when X = 8 and Y = 6. Determine the:
- (i) constant of proportionality;
- (ii) value of Y when X = 20;
- (iii) value of X when Y = 3. (6 marks)
- (c) A cuboid measures 40 cm by 30 cm by 12 cm. If it is melted down and then remoulded into a sphere, determine the radius of the sphere formed. (4 marks)
16. (a) State **five** advantages of keeping electronic records in a business enterprise. (5 marks)
- (b) (i) Explain the term 'intrapreneurship'.
- (ii) Outline **four** benefits of intrapreneurship to an organization. (6 marks)
- (c) Highlight **four** ways in which an entrepreneur may benefit from agency banking facilities. (4 marks)

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