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**ICT, MATHEMATICS AND  
ENTREPRENEURSHIP**

**June/July 2020**

**Time: 3 hours**



**THE KENYA NATIONAL EXAMINATIONS COUNCIL**

**CRAFT CERTIFICATE IN BAKING TECHNOLOGY**

**CRAFT CERTIFICATE IN CHILDCARE AND PROTECTION**

**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**

**CRAFT CERTIFICATE IN FISHERIES SCIENCE AND TECHNOLOGY**

**CRAFT CERTIFICATE IN NUTRITION AND DIETETICS**

## **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 tables.*

*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.*

*Candidates should answer the questions in English.*

**This paper consists of 6 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. Outline four features of a microcomputer. (4 marks)
2. Distinguish between *softcopy* output and *hardcopy* output as used in computer. (4 marks)
3. State the effect of pressing each of the following computer keyboard keys when working in a text editor:
  - (a) home;
  - (b) numlock;
  - (c) capslock;
  - (d) tab.(4 marks)
4. Explain each of the following terms as used in computers:
  - (i) firmware;
  - (ii) operating system.(4 marks)
5. Evaluate:
$$18 \div 8 \times -\frac{16}{9} + 40 - 6$$
(4 marks)
6. Convert:
  - (a) 20,000 millilitres to litres;
  - (b) 498 kilojoules to joules.(4 marks)
7. The daily sales  $S$  of a certain brand of cake is directly proportional to the population  $P$  of a town. When  $P$  is 40,000 people,  $S$  is Ksh 500,000. Determine  $S$  when  $P$  is 200,000 people. (4 marks)
8. Outline four factors that may discourage the growth of entrepreneurship in a country. (4 marks)

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9. Explain each of the following types of entrepreneurs:

- (a) acquirer;
- (b) promoter.

(4 marks)

10. Andrew is in the process of writing the financial plan section of his business plan. State four types of information that he should include in this section.

(4 marks)

### SECTION B (60 marks)

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

11. (a) Explain the function of each following are commands used when editing a table created in a word processor:

- (i) merge cells;
- (ii) split cells;
- (iii) shading.

(6 marks)

(b) Distinguish between disk *formatting* and disk *partitioning* as used in an ICT operating system.

(4 marks)

- (c) (i) Explain the term *web browser* as used in computers.
- (ii) List **three** examples of web browsers.

(5 marks)

12. (a) The probability of two sewing machines A and B breaking down in a week's time are  $\frac{1}{9}$  and  $\frac{1}{6}$  respectively. Determine the probability that:

- (i) **both** break down;and
- (ii) **only one** breaks down in one week's time.

(4 marks)

(b) A retailer stocks oranges at a cost of Ksh 8 each. If he sells an orange at Ksh 13, calculate his percentage profit.

(4 marks)

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- (c) The hourly pay in Ksh for thirteen casual workers in a factory are as shown in the following distribution:

80, 40, 50, 20, 10, 30, 40  
50, 90, 70, 40, 60, 70

Determine the :

- (i) median;  
(ii) mode;and  
(iii) mean of the distribution.

(7 marks)

13. (a) State **three** objectives that an organisation may seek to achieve through product promotion. (3 marks)
- (b) Explain **three** resource factors that an entrepreneur should consider when starting a business. (6 marks)
- (c) Explain **three** reasons that make it necessary for entrepreneurs to encourage innovative practices in their business. (6 marks)
14. (a) State **three** benefits of online shopping to customers. (3 marks)
- (b) Explain **three** ways in which an organisation may prevent virus infections in their computers. (6 marks)
- (c) Table 1 shows an extract from a spreadsheet program used by an importer of electronics to compute transactions. Study the table and use it to answer the questions that follow:

	A	B	C	D	E
1	PRODUCT	QUANTITY	IMPORT PRICE	IMPORT COST	IMPORT DUTY
2	Phone accessories	1800	150		
3	Solar lamps	950	200		
4	Electric bulbs	2000	100		
5	GRAND TOTAL				
6	IMPORT DUTY RATE	25%			



Using cell addresses only, write a spread sheet expression that would be used to determine:

- (i) import cost for electric bulbs given that import cost is the product of quantity and import price;
- (ii) grand total import cost for all the products;
- (iii) amount of import duty for solar lamps.

(6 marks)

15. (a) The equation of a straight line is given by  $3y - x = 6$ .

- (i) Express the equation in the form  $y = mx + c$ .
- (ii) Using the equation in (i), determine the:
  - (I) gradient;
  - (II) y-intercept.

(4 marks)

- (b) Figure 1 represents a piece of cloth in the shape of a trapezium ABCD. The shaded part is a circle of diameter 0.6 m cut off from the material. Determine the area of the piece of cloth left. (6 marks)

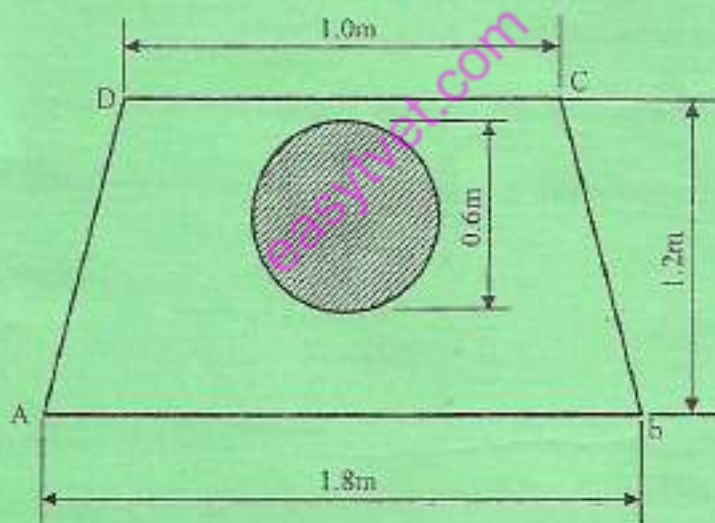


Fig. 1

- (c) Figure 2 shows a 2-Dimensional shape of a scone consisting of a conical top and a hemispherical bottom.

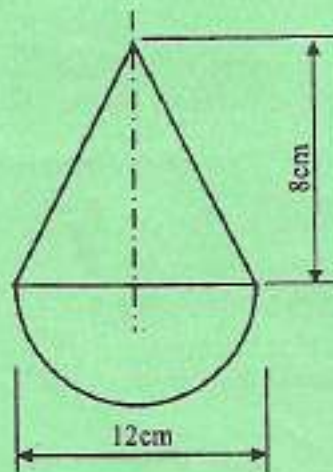


Fig. 2

Calculate the volume of the scone.

(5 marks)

16. ✓ (a) Outline **four** ways in which a business enterprise may be socially responsible to a community. (6 marks)
- (b) Explain **three** challenges that an entrepreneur may face when using information communication technologies (ICTs) in a business. (6 marks)
- (c) (i) Explain the term globalization as used in entrepreneurship;
- (ii) State **three** advantages of globalization to an entrepreneur.

(3 marks)

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