

1507/113      1901/101  
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ICT, MATHEMATICS AND  
ENTREPRENEURSHIP  
June/July 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:*

*Mathematical tables/a non programmable scientific calculator;*

*Answer booklet.*

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

*Answer ALL questions in Section A and the specified FOUR questions from section B.*

*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 (40 marks)

Answer **ALL** the questions in this section.

1. Outline **four** functions of the control unit in the computer system. (4 marks)
2. (a) State **four** elements that may be required when creating a computer network. (2 marks)
- (b) State **two** types of relationships used in databases. (2 marks)
3. Describe the procedure used to rotate a text box in a word processing program. (4 marks)
4. (a) List **four** mathematical operators used in spreadsheet formulas. (2 marks)
- (b) Write the spreadsheet formula that would be used to total all the values in cells  $A_1, A_2, A_3 \dots A_{10}$ . (2 marks)
5. A line which joins the point A (4, K) and B (-2, 5) is parallel to a line whose equation is  $5y + 2x - 7 = 0$ . Determine the value of k. (4 marks)
6. Three entrepreneurs Ann, Bela and Dolly contributed a total of Ksh 1,302,000 to start a business. The ratio of the contribution of Ann to Bela was 2:3 and that of Bela to Dolly was 4:5. Determine the contribution made by Dolly. (4 marks)
7. A bank buys and sells foreign currencies at the exchange rates shown in Table I

Table I

Currency	Buying (Ksh)	Selling (Ksh)
1 Euro	150.86	152.20
1 US Dollar	110.22	114.50

A tourist arrived with 21200 Euros. He converted all the Euros to Kenya shillings at the bank. Then spent Ksh 2,512,000 while in the country and converted the remaining Kenya shillings to US Dollars at the bank. Determine the amount, in Dollars, that the tourist received.

(4 marks)

8. The proprietor of SK Packers Ltd intends to upgrade their packaging materials. State **four** qualities of such packaging materials. (4 marks)
9. Outline **four** benefits of innovation to a business enterprise. (4 marks)
10. Explain **two** characteristics of a visionary entrepreneur. (4 marks)

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## SECTION B (60 marks)

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

11. (a) Differentiate between 'save' and 'save as' commands when using a spreadsheet program. (4 marks)
- (b) Outline **four** advantages of using the hard disk as a storage device. (4 marks)
- (c) State **three** control measures that may be taken against unauthorised access to data in a computer. (3 marks)
- (d) Highlight **three** benefits that may be obtained from using the mail merge feature. (4 marks)
12. (a) Figure 1 shows an underground water tank with dimensions in metres.

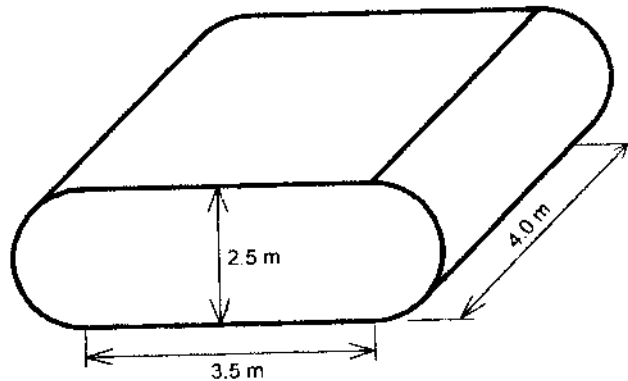


Figure 1

Calculate the volume of water in litres that the tank holds when full. (6 marks)

- (b) Figure 2 shows a square, ABCD, circumscribed by a circle of radius 120cm.

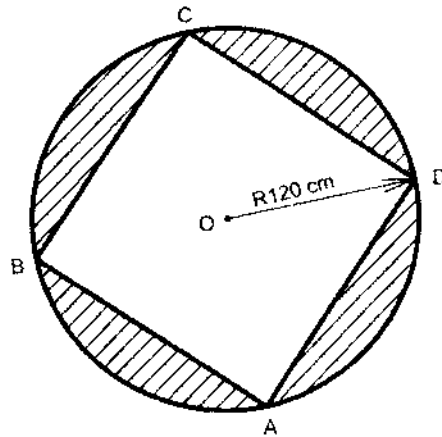


Figure 2

Find the area of the:

- (i) circle; (2 marks)
- (ii) square; (5 marks)
- (iii) shaded part. (2 marks)
13. (a) (i) Explain the meaning of the term 'stakeholder' as used in a business enterprise. (3 marks)
- (ii) Identify **two** categories of stakeholders of a business enterprise. (3 marks)
- (b) Explain the meaning of each of the following terms as used in entrepreneurship:
- (i) creativity; (4 marks)
- (ii) business plan. (4 marks)
- (c) Explain **four** reasons that may lead to failure of an enterprise. (8 marks)
14. (a) Explain **two** functions of a computer network. (4 marks)
- (b) Outline the procedure that should be followed when creating footnotes. (4 marks)
- (c) State **four** characteristics of first generation computers. (4 marks)
- (d) Outline **three** advantages of using speech recognition systems as input devices. (3 marks)

15. (a) (i) Find the value of:  ${}^4P_2$  (3 marks)
- (ii) Calculate the number of ways of selecting three people from a group of twelve people: (3 marks)

- (b) Table II shows the frequency distribution of the length (in cm) of 30 plants.

**Table II**

<b>Length (cm)</b>	4 - 8	9 - 13	14 - 18	19 - 23	24 - 28
<b>Frequency</b>	2	7	12	6	3

- (i) Determine the modal class. (4 marks)
- (ii) Calculate the:
- (I) mean;
- (II) standard deviation. (5 marks)
16. (a) State **four** challenges that may be faced by female entrepreneurs. (4 marks)
- (b) Outline **three** consequences of poor communication in an enterprise. (3 marks)
- (c) Explain **four** measures that the management of an enterprise may take to encourage creativity among employees. (8 marks)

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