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# IKUTHA SUB-COUNTY KCSE REVISION MOCK EXAMS 2015

## COMPUTER STUDIES PAPER 1

### SCHOOLS NET KENYA

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NAME \_\_\_\_\_ INDEX NO. \_\_\_\_\_  
SCHOOL \_\_\_\_\_ SIGNATURE \_\_\_\_\_  
DATE \_\_\_\_\_

**451/1**  
**COMPUTER STUDIES**  
**PAPER 1**  
**THEORY**  
JULY/AUGUST, 2015  
TIME: 2½ HOURS

**IKUTHA SUB-COUNTY FORM FOUR JOINT EXAMINATION, 2015**  
**Kenya Certificate of Secondary Education (K.C.S.E)**

451/1  
COMPUTER STUDIES  
PAPER 1  
THEORY  
TIME: 2½ HOURS

INSTRUCTIONS TO CANDIDATES

- Write your name, index number and school in the spaces provided above.
- Write the date of examination and sign in the spaces provided.
- This paper consists of **two** sections.
- Answer **all** the questions in section **A**.
- Answer question **16** (compulsory) and **any other three** questions from section **B**.
- All answers **must** be written in the spaces provided in this question paper.

FOR EXAMINER'S USE ONLY

| Section | Question | Maximum score | Actual score |
|---------|----------|---------------|--------------|
| A       | 1 – 15   | 40            |              |
| B       | 16       | 15            |              |
|         | 17       | 15            |              |

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|  |    |             |  |
|--|----|-------------|--|
|  | 18 | 15          |  |
|  | 19 | 15          |  |
|  | 20 | 15          |  |
|  |    | Total score |  |

*This paper consists of 10 printed pages*

*Candidates should check to ensure that all pages are printed as indicated and no questions are missing.*

**SECTION A** (40 MARKS)

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

1. Outline **two** areas that should be considered when categorizing software. (2 marks)

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2. Suggest how computers may in future be made more user friendly for persons that are: (2 marks)

a) Blind

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b) Without hands

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3. State any **three** disadvantages of a magnetic diskette. (3 marks)

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4. a) Define data processing. (1 mark)

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- b) Explain **two** characteristics of good information. (2 marks)

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5. Distinguish between data verification and data validation. (2 marks)

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6. Describe the following menu tools as used in Ms.word. (2 marks)

i) Print layout:

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ii) Web layout:

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7. Define the following terms as used in mail merging. (4 marks)

i) Main document

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ii) Data source

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8. a) Difference between real-time system and online systems. (2 marks)

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b) Explain how information and communication technology has contributed to teaching and learning in schools. (2 marks)

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9. State the use of the following network devices.

i) Network interface cards (1 mark)

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ii) Routers (1 mark)

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iii) Distinguish between thinnet and thicknet coaxial cables. (2 marks)

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10. Convert  $(111.010_2)$  to decimal number. (3 marks)

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11. Explain the type of errors that are likely to exist in a program? (4 marks)

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12. State **three** ways in which ICT can be used in industrial control. (3 marks)

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13. State **two** reasons why it is necessary to have well connected and proper cables in a computer laboratory. (2 marks)

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14. What do you understand by the term 'soft system' in a system development? (1 mark)

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15. What is a relational database? (1 mark)

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b) Draw a flowchart for the above pseudo code.

(5marks)

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c) Write brief notes on structured programming.

(4 marks)

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17. a) List **four** characteristics of a system.

(2 marks)

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b) Give any **three** circumstances that may make an organisation to develop a new information system.

(3 marks)

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c) Study the spread sheet below and answer the questions that follow.

|    | A                              | B     | C        | D    |
|----|--------------------------------|-------|----------|------|
| 1  | WESTLINK COMPUTER BOOKS CENTRE |       |          |      |
| 2  | TITLE                          | PRICE | NO. SOLD | COST |
| 3  | Computer longhorn book 2       | 320   | 25       |      |
| 4  | Visual basic (6) turbo         | 820   | 21       |      |
| 5  | Computer longhorn book 4       | 350   | 100      |      |
| 6  | Computer science               | 900   | 12       |      |
| 7  | Computer applications          | 845   | 36       |      |
| 8  | Computer hardware              | 1250  | 10       |      |
| 9  | Computer software              | 1250  | 27       |      |
| 10 |                                |       |          |      |

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i) Write down the formula used to find the price of the cheapest book. (1 mark)

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ii) Write down the formula used to determine the total sales for the book titled computer applications. (1 mark)

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iii) Write down the formula used to determine the average price of all books. (1 mark)

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iv) State any **four** advantages of using an electronic spread sheet compared to traditional spread sheet. (2 marks)

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e) Differentiate between a column chart and a bar chart as used in spread sheets. (4 marks)

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f) Define the term gutter in relation to column setting in DTP. (1 mark)

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18. a) Name and describe **four** main application areas of artificial intelligence in ICT. (12 marks)

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b) Distinguish between a primary key and a foreign key as used in DBMS. (2 marks)

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c) What do the term header and footer mean? (2 marks)

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d) What do you understand by the terms attenuation and baseband signal? (3 marks)

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20. a) Define the following (3 marks)

i) Record

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ii) File

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iii) Database

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b) i) List any **three** ways of dealing with a virus on a computer. (3 marks)

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ii) Explain the functions performed by;

(2 marks)

a) The control unit

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b) Arithmetic and logic unit (ALU)

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c) Convert the  $522^8$  to its base 10 equivalent.

(2 marks)

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d) Using long division methods convert  $67_{10}$  into binary.

(2 marks)

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e) Outline **three** disk management activities.

(3 marks)