# THE UNITED REPUBLIC OF TANZANIA
# NATIONAL EXAMINATIONS COUNCIL
# CERTIFICATE OF SECONDARY EDUCATION EXAMINATION

**036/1** **INFORMATION AND COMPUTER STUDIES 1**
(For School Candidates Only)

**Time: 3 Hours** **Tuesday, 17th November 2015 p.m.**

**Instructions**

1. This paper consists of sections A, B and C.
2. Answer **all** questions in sections A and B and **two (2)** questions from section C.
3. Cellular phones are **not** allowed in the examination room.
4. Write your **Examination Number** on every page of your answer booklet(s).

## SECTION A (30 Marks)

Answer **all** questions in this section.

1. For each of the following items (i) – (x), choose the most correct answer from the alternatives provided and write its letter beside the item number in your answer booklet.

(i) Which of the following is necessary for running application software?
A Network card
B Utility program
C Graphical user interface
D Operating system
E System software

(ii) The ALU of a Computer responds to the commands coming from
A External memory
B Primary memory
C Cache memory
D Dynamic memory
E Buffer memory

(iii) The electronic pathway where information travels between the CPU and other parts within the motherboard is called
A Link bus
B Register bus
C Instruction bus
D Line bus
E Data bus

(iv) The main board which enables communication between devices in a computer is known as
A Monitor
B Memory board
C Hard board
D Computer board
E Mother board

(v) The fraud which occurs when a fraudster uses a false or fake identity to gain access to an electronic service is called
A Roaming
B Clip-on
C Subscription
D Calling card
E Superimposed

(vi) External hardware parts of a computer are known as
A Disks
B Peripherals
C Ports
D Components
E Devices

(vii) A spreadsheet that already includes labels and formulas is called
A Template
B Macro
C Graphic
D Work-sheet
E Workbook

(viii) Which function is used to enter current time in a worksheet cell?
A =hour()
B =currentTime()
C =today
D =time()
E =now()

(ix) A computer network media that supports large volumes of data transfer is called
A Network interface card
B Fibre optical cable
C Twisted pair cable
D Coaxial cable
E Network cable

(x) Which of the following is the correct order of the units of computer memory in descending order in terms of size?

A Byte>kilobyte>Bit>Gigabyte>Megabyte
B Gigabyte>Megabyte>Kilobyte>Byte>Bit
C Bit>Byte>Kilobyte>Megabyte>Gigabyte
D Byte>Bit>Kilobyte>Megabyte>Gigabyte
E Megabyte>Gigabyte>Kilobyte>Byte>Bit

2. Match the following characteristics of electronic memory devices in **List A** to their corresponding electronic devices in **List B** by writing the letter of the correct option beside the item number in your answer booklet.

| List A | List B |
|---|---|
| (i) A special temporary storage available in the ALU | A Removable storage |
| (ii) Special memories that are found in input/output devices. | B Fixed storage |
| (iii) Memory devices which are becoming unpopular due to the entry into market of affordable mass storage | C Flash disk |
| (iv) Memory device which are suitable for recording motion pictures. | D Buffer storage |
| (v) Storage media that are not housed inside the computer. | E Register |
| (vi) Memory storage whose content can be accessed and read but can not be changed | F Permanent storage |
| (vii) The main memory in a virtual memory system. | G ROM storage |
| (viii) Working storage that is used to hold instructions and data needed by the currently running application. | H Volatile storage |
| (ix) Non – volatile storage media that employs integrated circuits rather than mechanical or optical technology. | I Hard storage |
| (x) Computer storage where data is written and read from them uses a laser beam. | J RAM storage |
| | K Floppy disks |
| | L Optical storage |
| | M Non-volatile storage |
| | N Digital Versatile Disks |

3. In the following items (i- x), write (T) for a True statement and (F) for a False statement.

(i) Headers and footers are not necessary to identify a document. _____

(ii) Each publication window can include horizontal and vertical rulers. _____

(iii) Timing slide show, allows the slide presentation to view automatically. _____

(iv) In database, tables have records which are columns and fields which are rows. _____

(v) A query is really nothing more than a question you ask to access your data. _____

(vi) Power point presentations can only be viewed by hand out. _____

(vii) Computer chips are made out of silicon. _____

(viii) Database keeps all the information in a file about one person, thing, and event. _____

(ix) Many word processors can convert standard text document into the HTML format. _____

(x) Operating system can be classified into three categories according to user interface. _____

## SECTION B (50 Marks)

Answer all questions in this section.

4. (a) Explain the main reason for using BIOS in the computer. **(2 marks)**
(b) Mention two types of buses that affect the speed of computer. Explain the function of each type. **(3 marks)**
(c) Differentiate the fourth generation from fifth generation computers. **(2 marks)**

5. (a) Give four disadvantages of traditional databases. **(2 marks)**
(b) A mail order company selling plastic equipments keeps details of its stock on a database. Part of the database is shown in the following table:

| Code_Num | Colour | Speakers Power (W) | No.of CDs | Price (Tsh.) |
|---|---|---|---|---|
| 13416 | Black | 450 | 4 | 650000 |
| 13425 | Silver | 260 | 1 | 500000 |
| 13504 | Silver | 480 | 5 | 750000 |
| 14001 | Black | 100 | 3 | 110000 |
| 14005 | Black | 1000 | 4 | 900000 |
| 14010 | Silver | 240 | 6 | 350000 |

(i) Which field should be used as the key field? **(0.5 mark)**
(ii) Which code_Num data will be listed if the following search condition is applied?

(Speakers power>400) AND (No of CDs>4). (2 marks)

(iii) Write down a search condition to find all the equipment which is silver coloured or has a price greater than 500,000/=. (2 marks)

(iv) Write down the order of the Code_Num after the price (Tsh) field has been sorted in ascending order. (1.5 mark)

6. (a) Describe three applications of Internet in the area of education. (3 marks)
(b) Mention four components of the computer. (2 marks)
(c) (i) Differentiate system software from application software. (2 marks)
(ii) Give four functions of an operating system. (2 marks)

7. (a) Differentiate bound transmission media from unbound transmission media by giving three examples for each category. (5 marks)
(b) Explain why LANs are characterized by comparatively high- speed than WANs? (2 marks)

8. (a) Explain three components of electronic spreadsheet. (6 marks)
(b) Outline three factors to be considered when choosing a word processor. (3 marks)
(c) Explain how you can protect a document from unauthorised opening or altering? (2 marks)

9. (a) Why do you think the content of the web page needs to be written between the <body> and </body> tags? (2 marks)
(b) Write the output of the following HTML codes. (6 marks)

```
<html>
<body>

Congratulation for opting computer studies
<br>

<OL>
<LI> Age
<LI>Telephone
<LI>Address
</OL>
My favourable subjects are
<UL type="square">
<LI> Computer studies
<LI> Mathematics and
<LI> English<br>

<INPUT TYPE="SUBMIT" NAME="SUBMIT"VALUE="Submit">
      
      

<INPUT TYPE="SUBMIT" NAME="SUBMIT"VALUE="Exit"></TR>
</body>
</html>
```

## SECTION C (20 Marks)

Answer **two (2)** questions from this section.

10. The Banking industry was the earliest consumers of information and communication technology. Describe four computerised banking services available today. **(10 marks)**

11. Explain four factors that affect the speed of Internet connection. **(10 marks)**

12. Describe four application areas of multimedia in the society. **(10 marks)**