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

036/1 **INFORMATION AND COMPUTER STUDIES 1**
(For Both School and Private Candidates)

Time: 3 Hours **Monday, 22nd October 2012 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).

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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.

(i) Which among the following is NOT a file format for Graphics and images?
A .bmp C .png E .gif
B .jpeg D .exe

(ii) The computers which are used for processing data and performing complex mathematical calculations are known as
A Supercomputers C Microcomputer E Mainframe computers
B Minicomputers D Complex computers

(iii) Which one of the following is an example of a mixed cell reference in a spreadsheet?
A A1 C $A1 E AB
B 2$B D B1

(iv) Cells A4, A7, C4, C5 and C7 contain values 5,5,6,2 and 3 respectively. Then in cell D a formula, =C5*(A4+A7)-(C4/C7) is entered. What will be the value for cell D?
A 28 C 8 E 14
B 16 D 18

(v) The following are features of the PageMaker publication window except
A Toolbox C Rulers E Tool bar
B Pasteboard D Control pallete

(vi) Which of the following devices must be used to connect two computers for sharing of data?
A USB C UPS E Gateways
B NIC D Modem

(vii) The unique identifier of records in databases is represented by
A Primary key C Foreign key E Candidate key
B First key D Permanent key

(viii) Which of the following is **not** a word processor?
A Word star C Word wrap E Apple works
B Word perfect D Word pro

(ix) The programs designed to perform specific tasks are called
A System software D Application software
B Utility programs E Special programs
C Computer programs

(x) Peripheral devices are connected to the system unit using special cables known as
A Interface cables D Twisted cables
B Ports cables E Device cables
C USB cables

2. Match the following functions of network devices in **List A** to their corresponding network hardware in **List B** by writing the letter of the correct option beside the item number. Each response may be used only once or not at all.

List A	List B
(i) Determines selectively through address filtering the appropriate network segment for which a message is meant for delivery.	A Wireless access point
(ii) Converts an analogue signal to digital form for transmission on a digital medium.	B Switch
(iii) A device that is configured to provide access to wide area network or Internet.	C Gateway
(iv) Connects computers to the network so that signals can be transmitted from one computer to another without filtering.	D Router
(v) Converts digital signals to analogue signals and vice versa.	E Repeater
(vi) Creates a physical link between the computer and the transmission media.	F Bridge
(vii) Transmitting and receiving antenna which facilitate communication very fast.	G Hub
(viii) Interconnects different networks and directs data transfer from source to destination.	H Modem
(ix) A device that recognizes signals transmitted in a channel and sends it directly to the address node without broadcasting it.	I Codec
(x) Detects signals in the surrounding which are transmitted in the form of radio waves, infrared waves or microwaves.	J Network Interface Card
	K Coaxial cable
	L An antenna
	M Data bus
	N Universal serial bus

3. In the following items, write **(T)** for True statement and **(F)** for False statement.

(i) Most website pages on the Internet are currently written in programming language. _____

(ii) Any text or alphanumeric characters entered in a cell are viewed as labels. _____

(iii) Modem communication cannot take place in half-duplex mode. _____

(iv) Function keys are used for tasks that frequently occur in programs. _____

(v) A cathode ray tube monitor looks and works much like a television screen. _____

(vi) Kerning refers to fixing of particular pairs of numbers that are too close or far apart from each other _____

(vii) A scanner is an example of output devices. _____

(viii) A parallel interface cable can transmit eight bits of data at once. _____

(ix) Windows 95 was popular because it featured cooperative multitasking. _____

(x) Notepad has got very limited formatting features. _____

SECTION B (50 Marks)

Answer **all** questions in this section.

4. (a) Mention four safety precautions for each type of computer component given below that should be observed to provide a conducive working environment in a computer laboratory.
   (i) Hardware **(2 marks)**
   (ii) Software **(2 marks)**
   (iii) Humanware **(2 marks)**
   (b) Describe the two major differences between primary storage devices from secondary storage devices, giving one example for each type. **(3 marks)**

5. (a) A Telephone Company produces paper-based directories. It has decided to offer directory information to customers via a website.
   (i) Give two advantages to the telephone company in doing this. **(1 mark)**
   (ii) What advantage does this new system offer to the customer? **(1 mark)**
   (iii) Give two disadvantages to the customer that the new system will have? **(2 marks)**
   (b) Describe any four career opportunities that are available in the computing field. **(4 marks)**

6. (a) An estate agent keeps a file of properties for sale on a computer. Some of the information stored on each property is shown in the table below:

Code	Type	Class	Price	Number of Bedrooms
MSL123	House	D	142,000	2
MSL 917	Storey building	S	1,000,000	3
MSL 134	House	S	750,000	4
MSL 912	Storey building	D	2,000,000	2

   (i) State how many records are there in the file? **(1 mark)**
   (ii) State the names of the fields available in the table above. **(1 mark)**
   (iii) Which of the above fields can be set as a primary key? Why? **(1 mark)**

(b) Simba –Traders employs 300 workers. One of their goals is to place the workers according to their training and skills. They believe that the experience of the employees must be utilised and expanded in their work. The firm has just identified a new project in which employees between the ages of 25 and 30 with training and experience as plumbers may be employed to advantage. Name five fields and the appropriate data type in a database that will definitely be used in a query to select the names of workers who can be assigned to the project. **(5 marks)**

7. (a) State the output of the following HTML codes after browsing **(8 marks)**

```
<html>

<title>Form II examinations</title>
<body>
<h1>Background</h1>
<Table>
<tr>
<th>School attended</th><th>Period of attendance</th><th>Qualifications acquired</th>
</tr>
<tr>
<td>Nyalikungu</td><td>1990-1995</td><td>Certificate</td>
</tr>
<tr>
<td>Nyalikungu p/s</td><td>1995-2000</td><td>Certificate</td>
</tr>
<tr>
<td>Kigoma s.s</td><td>2000-2002</td><td>CSEE</td>
</tr>
</Table>
</body>
</html>
```

(b) Explain, why physical formatting tags are better choice for getting the intended appearance than Logical tags? **(2 marks)**

8. (a) Outline two internet uses that negatively affect our culture. **(4 marks)**
(b) Explain how information and technology has contributed to environmental pollution **(3 marks)**

9. (a) Describe the terms below as used in word processing.
(i) Line spacing **(1 mark)**
(ii) Justification **(1 mark)**
(iii) Formatting text **(1 mark)**
(b) Why almost all word processors have common features? **(2 marks)**
(c) Differentiate a micro-computer from a super computer. **(3 marks)**

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SECTION C (20 Marks)

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

10. Describe how temperature, humidity and dust can cause computer damage? **(10 marks)**

11. Trace the development of modern computers by elaborating the unique characteristics which were developed in each generation of computers. **(10 marks)**

12. Analyse the risks that a company faces by not creating backup for computerized information. **(10 marks)**

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