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

0361 **INFORMATION AND COMPUTER STUDIES I**

(For Both School and Private Candidates)

Time: 3 Hours **Tuesday, 19th November 2013 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. Calculators and 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 among the alternatives provided and write its letter beside the item number

(i) A database file that contains a single data table is known as
A Single file
B Sorting file
C Double file
D Flat file
E Data file

(ii) The type of Printers which use a striking mechanism when printing characters is
A Non-impact
B Impact
C Thermal
D Inkjet
E Laser

(iii) The most appropriate type of indentation for paragraphing documents in word- processing is
A Full indentation
B Hanging indentation
C Left indentation
D Last indentation
E Right indentation

(iv) A formula required to find the sum of only those cells that have a value greater than 50 in the range of F7:H20 must be written as
A =SUMIF(F7:H20,">50")
B =SUMIF(F7:H20,">50")
C =SUMIF(F7:H20,">50")
D =SUMIF(F7:H20,">50")
E =SUM(F7:H20,>50)

(v) When integrating Word and Excel, word is usually acting as the
A Server
B Source
C Client
D Node
E Domain

(vi) The major function of secondary storage devices is to keep data for
A Running application
B Future use
C Editing
D Printing
E Short period of time

(vii) Which one of the following printer is commonly used for desktop publishing?
A Inkjet printer
B Dot matrix printer
C Laser printer
D Thermal printer
E Daisywheel printer

(viii) One of the following distracters is NOT the option of database security
A By user-level security
B Data encryption
C Use of password
D Introducing privacy policy
E Password encryption

(ix) The term analog data represents
A Data that stops
B Large data
C Discrete data
D Continuous data
E Small data

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Desktop publishing software can be classified into two broad categories which are

A Graphic-based and Layout-based
B Layout-based and Design-based
C Graphic-based and format based
D Format-based and design-based
E Graphic - based and design-based

Match the following features of LAN topology in **List A** to their corresponding type of Network topology in **List B** by writing the letter of the correct option beside the item number. Each option can be used more than once

List A	List B
(i) Deals with the way data passes from one device to the next device of the network	A Bus topology
(ii) Computers listen to the network media and can send data when none of the others is sending.	B Ring topology
(iii) Refers to the arrangement of components on the network.	C Token ring topology
(iv) Consists typically of personal computers each connected to the central computer or switch	D Ethernet topology
(v) All devices are connected to a central cable called backbone	E Mesh topology
(vi) Consists of one continuous length of cable (trunk) and a terminating resistor at each end	F Star topology
(vii) A circular loop of point to point links	G Physical topology
(viii) Each network device has a dedicated point to point link to the central hub	H Logical topology
(ix) Every device connected to all other devices	I Internet topology
(x) All nodes have equal access to the trunk	J Network topology
	K Hub topology

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

(i) **Horns, Journal and whistle are traditional ways of disseminating information.** _____

(ii) **Fifth generation computers are characterized by artificial intelligence.** _____

(iii) **UPS is the abbreviation of Universal Primary Source of power.** _____

(iv) **Windows protection error is displayed during startup after the GUI is loaded.** _____

(v) **Webpage can be created only by using special HTML program.** _____

(vi) **ICT destroy culture in developing countries because it helps the people to send E-mail regularly.** _____

(vii) **Monitors, LCD projector and speakers are examples of softcopy output devices.** _____

(viii) **Data integrity is measured in terms of accuracy, timeless and relevance of data.** _____

(ix) **Supercomputers are commonly used in training and learning institutions.** _____

(x) **Scripting languages need a compiler to develop or add functionalities on web page.** _____

SECTION B (50 Marks)

Answer **all** questions in this section.

4 (a) Define the term 'search engine' **(1 mark)**

(b) Describe the top two internet search engines **(4 marks)**

(c) Give four reasons why email is more preferred than normal letters. **(4 marks)**

5 (a) What is an operating system? Give four factors to consider when choosing an operating system for a computer. **(3 marks)**

(b) Outline the major three functions of an operating system **(3 marks)**

(c) Explain why a computer requires a modem to transmit data across distant network. **(2 marks)**

6 (a) State any four types of word processor applications **(2 marks)**

(b) Assume it is sports day at your school where there are four classes competing. Each class has three teams Junior, Middle and Senior.

(i) Give an illustration on how the spreadsheet can be used to create an electronic score sheet for the teams **(6 marks)**

(ii) Describe how the spreadsheet can be used to find the total goals of each team **(2 marks)**

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7. Explain with examples how the desktop publishing software gives a person designing publications a lot of control on
   (a) Graphic design
   (b) Page layout design
   (c) Printing

(9 marks)

8. (a) Explain the term computer crime in relation to computer usage **(1 mark)**
   (b) Describe three ways of preventing the Information and Communication Technology crimes. **(3 marks)**
   (c) Describe three major characteristics of the third generation computers. **(3 marks)**

9. (a) What is a Database Management System (DBMS)? **(1 mark)**
   (b) A property owner uses a database to store data about houses he sells. The table below shows part of the database.

Reference Number	Air Conditioner	Garden	Number of Bedroom	Price
N1230	Y	N	3	$1,200.00
N1135	N	Y	4	$1,500.00
N2452	N	Y	2	$670.00
N567	Y	N	3	$1,500.00
N1541	N	Y	2	$800.00

   (i) The records shown in the table above are to be sorted in ascending order of price. What will be the reference number of the first record in the database after it has been sorted? **(1 mark)**
   (ii) Assume the records shown above have been sorted in descending order of reference number. What will be the room status, price and the number of bedroom of the last record? **(1.5 mark)**
   (iii) Give the names of the fields that contain Boolean data type. **(1 mark)**
   (iv) Identify the field type of the reference number field. **(1 mark)**
   (v) Give two validation checks that could be carried out on the reference number field. **(1 mark)**
   (vi) Which field should be the primary key of the database table? **(0.5 mark)**

SECTION C (20 Marks)

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

10. Describe two advantages and two disadvantages of the increasing use of computer technology. **(10 marks)**

11. Explain four key elements of an effective Website. **(10 marks)**

12. Why electronic word processors are more preferred than manual typewriters? Describe by giving four reasons. **(10 marks)**

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