**THE UNITED REPUBLIC OF TANZANIA**

**NATIONAL EXAMINATIONS COUNCIL OF TANZANIA**

**CERTIFICATE OF SECONDARY EDUCATION EXAMINATION**

**036/1**                   **INFORMATION AND COMPUTER STUDIES 1**

(For Both School and Private Candidates)

**Time: 3 Hours**                    **ANSWERS**                   **Year: 2011**

**Instructions**

1. This paper consists of sections A, B and C with a total of twelve questions

2. Answer all the questions in section A and B and one question in section C.

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

(i) In spreadsheets, a block which is selected ready for data entry is called:
A. Active cell
B. Inactive cell
C. Red cell
D. Formula bar
E. Cell reference
Answer: A. Active cell
Reason: The active cell is the currently selected cell in a spreadsheet where data can be entered or edited.

(ii) Which tag is used to insert images into your webpage?
A. Image
B. Src
C. Img
D. File
E. Jpg
Answer: C. Img
Reason: The `<img>` tag is specifically designed to embed images in HTML documents, making it the correct choice.

(iii) The process of introducing a new system where the old and new systems operate side by side until the new system is established is called:
A. Direct approach
B. Phased approach
C. Parallel approach
D. Indirect approach
E. Piloting approach
Answer: C. Parallel approach
Reason: The parallel approach ensures that both systems run simultaneously, minimizing risks during the transition phase.

(iv) In word processors, which document viewing option best presents how the document is organized?
A. Normal View
B. Web Layout View
C. Outline View
D. Reading Layout View
E. Print Layout View
Answer: C. Outline View
Reason: Outline view provides a structured format of the document, showing headings and subheadings for better organization.

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(v) A computer that holds databases and programs for many terminals is known as:
A. Hub
B. Client
C. LAN
D. Server
E. Domain
Answer: D. Server
Reason: A server stores and manages resources, such as databases, to provide services to multiple client devices or terminals.

(vi) The term Netiquette as used by internet users refers to appropriate behavior while:
A. Creating webpages
B. Safeguarding computers
C. Using a LAN
D. Communicating online
E. Searching
Answer: D. Communicating online
Reason: Netiquette refers to the code of conduct or proper behavior for interacting with others in online environments.

(vii) In word processors, aligning texts evenly between left and right margins is called:
A. Editing
B. Justification
C. Centering
D. Page setup
E. Controlling
Answer: B. Justification
Reason: Justification ensures that text is evenly distributed between both margins, giving a clean and professional appearance.

(viii) Which software will be best suitable to create a customer inventory stock?
A. Microsoft Access
B. Microsoft Word
C. Microsoft PowerPoint
D. Microsoft FrontPage
E. Microsoft Publisher
Answer: A. Microsoft Access
Reason: Microsoft Access is a database management system designed for organizing and managing inventory data efficiently.

(ix) A printer that prints by striking small pins to a ribbon representing the character is called:
A. Dot-line
B. Drum

C. Desk jet

D. Laser jet

E. Dot-matrix

Answer: E. Dot-matrix

Reason: Dot-matrix printers use small pins to create characters on paper by striking an inked ribbon, making them suitable for certain applications.

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2. Match the following uses of keyboard keys in List A to their corresponding key names in List B by writing the letter of the correct option beside the item number.

List A

(i) When pressed together with Ctrl key sends the cursor to the bottom-most left corner of the screen.

(ii) A key used when someone wishes to abandon the current task.

(iii) Commonly used to accept data/commands which have just been typed on the screen.

(iv) When pressed together with any letter while caps lock is on, a small letter is typed.

(v) Allows the user to enter characters between already typed characters on a line of a monitor.

(vi) Temporarily suspends a running program.

(vii) Prints the content which appears on the monitor.

(viii) Stops any texts from moving up or down the screen.

(ix) Moves cursor to the next pre-set position that is, either forward or backward.

(x) When pressed together with the control (Ctrl) key it sends the cursor to the top-most page in the same document.

List B

A. ESC key

B. Tab key

C. Print screen

D. Scroll lock

E. Insert/Ins key

F. Enter key

G. Ctrl + End key

H. Home key

I. Right arrow

J. Down arrow

Solution:

(i) G

(ii) A

(iii) F

(iv) E

(v) E

(vi) H
(vii) C
(viii) D
(ix) B
(x) J

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

(i) The start and shortcut keys perform special functions in Windows operating system. T
(ii) On a network, data is transmitted in small groups called packets. T
(iii) Tags such as those indicating bold, strong, and emphasis are included in the category of basic formatting tags. T
(iv) Word processing programs can only work with texts. F
(v) Any type of information can be placed once the structure of a database is established. F
(vi) Annotations are notes that accompany graphs in Excel. T
(vii) The multimedia development process usually involves the efforts of a group of people. T
(viii) Your e-mail address is completely private. F
(ix) A scroll bar enables to view different parts of the file that does not fit in the window. T
(x) A primary key is a foreign key field of one database table that also appears in another table in the same database. F

4.

(a) With examples, briefly describe each of the following as used in databases:

(i) Field: A field is a single piece of data in a database table. For example, "Name" in a customer table.
(ii) Record: A record is a collection of related fields representing one entity. For example, a row containing "John Doe, 30, Male" in a table.
(iii) Relational database: A relational database organizes data into tables connected by relationships. For example, a student database linked with a course database.
(iv) Key field: A key field uniquely identifies each record in a table. For example, "Student ID" in a student table.

(b) Restarting a computer which had already been switched on is called:
Warm boot.

(c) Explain the features of a computer system abbreviated as WIMP.
WIMP stands for Windows, Icons, Menus, and Pointers. These elements provide a graphical interface for users to interact with the operating system.

5.

(a) Explain briefly the meaning of "data processing."

Data processing refers to the collection, manipulation, and presentation of data to generate meaningful information.

(b) Briefly give four reasons to show the advantages of processing data electronically.
1. Speed: Data is processed faster compared to manual methods.
2. Accuracy: Minimizes errors through automated checks.
3. Efficiency: Handles large volumes of data with ease.
4. Storage: Allows compact storage and quick retrieval of information.

(c)

(i) Identify three tasks of the main memory of the computer.
1. Stores data temporarily for quick access.
2. Holds active applications and operating system processes.
3. Facilitates multitasking by managing memory allocation.

(ii) Why do computers require a storage device despite having the main memory?
Storage devices provide permanent data storage, unlike main memory, which is volatile and clears upon shutdown.

6.

(a) How does word processing differ from data processing?
Word processing focuses on creating and editing text documents, while data processing involves organizing and analyzing numerical or other types of data to produce meaningful results.

(b) Distinguish Desktop Publishing from Word Processing.
Desktop publishing is used for creating visually appealing layouts for print, such as flyers and brochures, while word processing is used for text-focused documents like letters and reports.

(c). (i) How does a spellchecker confirm the correct spelling of a word?
A spellchecker compares the typed word against its built-in dictionary to verify spelling.

(ii) Why would a spellchecker reject correctly spelt words?
It may reject words not included in its dictionary, such as names or technical terms.

(iii) How is a spellchecker made to accommodate new words?
New words can be added to the spellchecker's custom dictionary.

(d) Explain briefly each of the following in relation to document formatting:

(i) Margins: Margins define the space between the text and the edges of the page.
(ii) Orientation: Orientation determines whether the document is displayed in portrait or landscape layout.

(iii) Page size: Page size specifies the dimensions of the document, such as A4 or letter size.
(iv) Headers and Footers: Headers and footers are sections at the top and bottom of a document, respectively, used for repetitive information like page numbers.

8. Differentiate Internet from URL.
- The Internet is a global network connecting millions of devices, enabling communication and data sharing.
- A URL (Uniform Resource Locator) is the specific address used to access a resource on the Internet.

(b).(i) What does the abbreviation URL stand for?
Uniform Resource Locator.

(ii) Describe the main parts of a URL.
1. Protocol (e.g., https://): Defines the communication rules.
2. Domain name (e.g., www.example.com): Specifies the resource's location.
3. Path (e.g., /folder/page.html): Points to the specific file or directory.

(iii) How does HTML differ from a URL?
HTML is the markup language used to create web pages, while a URL identifies the location of web pages on the Internet.

7.

(a) How does word processing differ from data processing?
Word processing is the use of software like Microsoft Word to create, edit, and format text documents. Data processing involves the manipulation of numerical or other types of data to generate information, often using spreadsheets or databases.

(b) Distinguish Desktop Publishing from Word Processing.
Desktop publishing involves creating documents with an emphasis on layout and design, such as brochures or newsletters, using software like Adobe InDesign. Word processing is focused on creating and editing textual documents with minimal formatting, like letters or reports.

(c)

(i) How does a spellchecker confirm the correct spelling of a word?
A spellchecker compares the entered word with its internal dictionary to check for a match.

(ii) Why would a spellchecker reject correctly spelled words?
The spellchecker may reject correctly spelled words if they are not included in its dictionary, such as names, technical terms, or acronyms.

(iii) How is a spellchecker made to accommodate new words?
Users can add new words to the spellchecker's custom dictionary to prevent future rejections.

(d) Explain briefly each of the following in relation to document formatting:

(i) Margins: Margins define the blank space between the text and the edges of the page, providing a neat and readable layout.
(ii) Orientation: Orientation refers to the direction in which a document is displayed or printed, either portrait or landscape.
(iii) Page size: Page size determines the dimensions of the document, such as A4 or legal size.
(iv) Headers and Footers: Headers and footers are sections at the top and bottom of a page, used for repetitive elements like page numbers, titles, or dates.

8.

(a) Differentiate Internet from URL.
The Internet is a global network of interconnected devices and servers used for communication and data sharing. A URL (Uniform Resource Locator) is the specific address used to access a particular resource or webpage on the Internet.

(b)

(i) What does the abbreviation URL stand for?
Uniform Resource Locator.

(ii) Describe the main parts of a URL.
1. Protocol: Specifies how data is transferred (e.g., http, https).
2. Domain name: Identifies the website (e.g., example.com).
3. Path: Points to a specific page or resource within the domain (e.g., /about).

(iii) How does HTML differ from a URL?
HTML (HyperText Markup Language) is used to create and structure web content, whereas a URL is used to locate that content on the Internet.

9. (a) Describe briefly the types of computers as classified according to size.
1. Microcomputers: Small, personal computers like desktops and laptops used for individual tasks.
2. Minicomputers: Medium-sized computers used by small businesses for shared tasks.
3. Mainframe computers: Large systems used by enterprises for processing vast amounts of data.
4. Supercomputers: Extremely powerful computers used for complex computations, such as weather modeling or scientific research.

10. (a) Explain the advantages of using computer networks.
1. Resource sharing: Enables devices like printers and storage to be shared among users.
2. Communication: Facilitates easy and instant communication through emails and messaging.
3. Centralized data management: Allows centralized access and management of information.

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(b) Identify the major types of computer software and explain how they relate to the functioning of the computer system.

1. System software: Manages hardware and provides essential functions for running applications (e.g., operating systems).

2. Application software: Performs specific tasks for users, such as word processing or graphic design.

3. Utility software: Optimizes the performance of a computer, such as antivirus programs.

(c) Illustrate the relationship among the basic components of the computer system.

1. Input devices (e.g., keyboard, mouse): Capture data and send it to the computer for processing.

2. Central Processing Unit (CPU): Processes data and instructions.

3. Output devices (e.g., monitor, printer): Display or produce results from processed data.

4. Storage devices (e.g., hard drive): Store data permanently for future use.