**THE UNITED REPUBLIC OF TANZANIA**

**NATIONAL EXAMINATIONS COUNCIL OF TANZANIA**

**FORM TWO NATIONAL ASSESSMENT**

**036**             **INFORMATION AND COMPUTER STUDIES**

**Time: 2:30 Hours**                    **ANSWERS**                              **Year: 2023**

**Instructions**

1. This paper consists of  sections A, B, and C

2. Answer all questions in section A and B and C

3. All writings must be in **blue** or **black** ink.

4. Communication devices and any unauthorized materials are **not** allowed in the assessment room.

5. Write your **Examination Number** at the top right hand corner of every page.

1. For each of the items (i)–(x), choose the correct answer from the given alternatives and write its letter in the box provided.

(i) Which one is the process of arranging data elements in ascending or descending order?
A. Editing
B. Sorting
C. Formatting
D. Filtering
Answer: B. Sorting
Reason: Sorting refers to organizing data in a specific order, either ascending or descending.

(ii) Which technique would you suggest to teachers to maintain safety in a computer laboratory for both computers and users?
A. Using school badges
B. Fitting grills on doors
C. Having regular breaks
D. Using anti-glare screen
Answer: B. Fitting grills on doors
Reason: Fitting grills improves physical security by preventing theft and unauthorized access.

(iii) What is the function of **Justify** feature in Microsoft Word?
A. To align text both left and center margins
B. To align text both right and equal margins
C. To align text both left and right margins
D. To align text both left and top margins
Answer: C. To align text both left and right margins
Reason: Justify aligns the text evenly along both the left and right margins, providing a clean, formal look.

(iv) Mercy wants to learn the application of formula in Microsoft Excel and she typed =(A2+1) in a cell. How can you interpret the typed formula?
A. Sum of values in cell A2 and 1
B. Sum of value 2 and 1
C. Sum of values in cells A1 to A2
D. Sum of values in cell A1
Answer: A. Sum of values in cell A2 and 1
Reason: The formula adds the value in cell A2 with 1 and displays the result.

(v) Suppose your school wants to establish a computer network that can simplify resource sharing in the staffroom office. What type of network would you suggest to be established?
A. Interconnected network
B. Metropolitan Area Network
C. Local Area Network
D. Wide Area Network

Answer: C. Local Area Network

Reason: A Local Area Network (LAN) is best suited for connecting computers within a limited area like a school.

(vi) The Headmistress at Mwandege Secondary School intended to establish free email address for easy communication with parents. Which one is the correct email address?

A. mwandege@gmail.co.tz

B. headmistress@gmail.ac.tz

C. mwandege@yahoo.ac.tz

D. mwandege@gmail.com

Answer: D. mwandege@gmail.com

Reason: Gmail addresses end with `.com`, and no additional suffix like `.co.tz` applies.

(vii) Why laptop and desktop computers are categorized as microcomputers?

A. They can process huge data

B. They are accurate in processing data

C. They use CPU called microprocessors

D. They perform complex operations

Answer: C. They use CPU called microprocessors

Reason: Microcomputers utilize microprocessors, making them small and efficient for personal use.


2. Match the functions of the features of word processors in List A with their corresponding features in List B by writing the letter of the correct answer below the table provided.

List A:

(i) It is used as a communication channel between the user and the application program.

(ii) It indicates the name of the document currently running.

(iii) It consists of buttons and icons that provide shortcut commands on the menu bar.

(iv) It is a group of commands where each command has a drop-down list with commands.

(v) It is used to make a document more attractive.

List B:

A. Window bar

B. Menu bar/Ribbon

C. Toolbar

D. Document window

E. Formatting toolbar

F. Title bar

Answers:

(i) A

(ii) F

(iii) C

(iv) B

(v) E

3. The following figure shows a physical arrangement of computers in a certain office. Study it carefully and answer the questions that follow:

(a) What is the name of the physical topology presented in the figure provided?

Answer: Star Topology

Reason: A star topology is characterized by having all computers connected to a central hub or switch.

b) What are the names of the components labeled with letters A, B, and C?

(i) A: Switch

(ii) B: Computer

(iii) C: Network Cable

(c) What three advantages of the type of network used in Figure 1?

Answer:

(i) Centralized control: The central hub or switch in the network ensures smooth communication and allows monitoring and management of all connected devices efficiently.

(ii) Easy troubleshooting: If one computer or cable fails, it does not affect the rest of the network, making it easier to isolate and fix issues.

(iii) Scalability: The network can be easily expanded by adding more devices to the central hub without disrupting the existing network.

4.(a) Give two advantages of choosing desktop computers instead of laptop computers.

i. Desktop computers are generally cheaper than laptops.

ii. Desktop computers offer higher performance and can be easily upgraded.

(b) Which five parts would you need to connect together in order to use desktop computers?

i. Monitor.

ii. Central Processing Unit (CPU).

iii. Keyboard.

iv. Mouse.

v. Power supply.

5. (a) Shafii is a Standard Four pupil who wants to practise on how to use Microsoft Word program. Assist him to identify the steps of inserting the following:

Page numbers:

i. Click on the "Insert" tab on the ribbon.

ii. Select "Page Number" in the "Header & Footer" group.

iii. Choose the position where you want the page numbers (top, bottom, or margin).

iv. Select a page number style from the dropdown menu.

v. Click "OK" to insert the page numbers.

(b) Tables with 3 rows and 5 columns:

i. Click on the "Insert" tab on the ribbon.

ii. Select "Table" in the "Tables" group.

iii. Drag the grid to highlight 3 rows and 5 columns.

iv. Click to insert the table.

v. Format the table as needed.

6. (a) (i) GGP Company experienced a great problem of losing all data saved in the computer saver because it was stolen. Currently, there is no any data available for future use. Explain the mistake made by the company.

The mistake made by the company was failing to create a backup of its data, leaving it vulnerable to permanent loss in the event of theft or damage.

(ii) What should be done to avoid such a problem in the future?

The company should implement a routine data backup process using external storage devices or cloud storage solutions.

(iii) Which two devices should be used in solving the problem of losing all data?

- External hard drive.

- Cloud storage services.

(b) How can you differentiate a computer worm from a virus?

- A worm is a standalone malicious program that replicates itself to spread across networks, while a virus attaches itself to files or programs to execute and spread.

7. (a) What is the name of the software used to enter data?

The software used to enter data is a Spreadsheet software, such as Microsoft Excel.

(b) What are the three data types used in the worksheet?

i. Text (e.g., Name of crops)

ii. Numeric data (e.g., buying and selling prices)

iii. Formulas (e.g., calculating the Total).

(c) In the worksheet given, which cell is active?

The active cell is the one outlined, typically where the cursor is placed.

(d) Which formula can you use in cell E9 to calculate the profit?

=SUM(D3:D8)-SUM(C3:C8).

(e) How can you insert a pie chart of crop "Name" against "Selling Price"? Give six steps.

i. Highlight the data for crop "Name" and "Selling Price".

ii. Click on the "Insert" tab on the ribbon.

iii. Select the "Pie Chart" option from the Charts group.

iv. Choose the desired pie chart type.

v. Customize the chart using labels and formatting.

vi. Save or place the chart appropriately in the worksheet.

8. (a) Why most of computer users prefer to use Graphical User Interfaces than Command Line operating system?

Most computer users prefer Graphical User Interfaces (GUIs) because they are more user-friendly, relying on visuals like icons, buttons, and windows, which reduce the need to memorize commands. GUIs also enable multitasking and provide immediate feedback, making them suitable for non-technical users.

(b) Explain four factors to be considered when purchasing computer systems including software.

i. Compatibility - Ensure the system and software can work together seamlessly without conflicts.

ii. Budget - Assess the cost of the computer system and software to fit the financial plan.

iii. Performance - Evaluate the speed, memory, and processing power to meet user requirements.

iv. Support and updates - Consider availability of technical support and regular software updates to ensure functionality over time.

9. (a) Which communication media can be used by the villagers? Give four.

i. Mobile phones

ii. Radio broadcasts

iii. Social media platforms (e.g., WhatsApp, Facebook)

iv. Television

(b) Why the Tambani villagers opted to use modern communication media to address their problems? Give three reasons.

i. Modern communication media have a wider reach, ensuring their grievances are heard by the relevant authorities.

ii. They are faster and more efficient compared to traditional methods, ensuring quick dissemination of their issues.

iii. Modern media enable interaction and feedback, making it easier to discuss solutions and plans with stakeholders.

10. Describe the use of internet in simplifying life at Home, Education institution, Commerce, Banks and at Hospital.

The internet simplifies life at home by enabling access to online entertainment, virtual communication through video calls, and online shopping, reducing the need for physical stores.

In education institutions, it provides a platform for e-learning, access to vast educational resources, and facilitates student-teacher communication through virtual classes and forums.

For commerce, the internet supports e-commerce platforms where businesses can sell and advertise their products, reaching a global audience, and enabling cashless transactions.

In banks, the internet allows online banking services such as funds transfer, checking balances, and bill payments, ensuring convenience for users without physical visits.

At hospitals, it supports telemedicine for remote consultations, patient records management, and online appointment booking, enhancing efficiency and patient care.