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ZANZIBAR EXAMINATION COUNCIL

FORM THREE ENTRANCE EXAMINATION, 2011

063

INFORMATION AND COMPUTER STUDIES

Time: 2:30 Hours.

ANSWER**INSTRUCTIONS TO CANDIDATES**

1. This paper consists of Three (3) sections A, B and C.
2. Answer **ALL** questions from Section A and B and **ONLY ONE** questions from section C
3. Write your examination number on each page.
4. Write all answers on the space provided.
5. Use a blue or black pen in writing. Drawings must be in pencil.
6. Cellular phones and unauthorized materials are not allowed in the examination room.

	THIS PART FOR EXAMINER'S ONLY	
Question number	MARKS	SIGNATURE
1.		
2.		
3.		
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11.		
12.		
TOTAL		

SECTION A (15 Marks)

Attempt ALL questions from this section.

1. Choose the letter of the correct answer and write it in the table provided.

i) The first electronic digital computer was developed in which generation?

- A. First generation
- B. Second generation
- C. Third generation
- D. Fourth generation

The correct answer is A: First generation.

The first electronic digital computers, such as ENIAC, were developed during the first generation (1940s–1950s) and used vacuum tubes.

ii) Which of the following is a type of permanent memory?

- A. RAM
- B. ROM
- C. Cache
- D. Register

The correct answer is B: ROM.

ROM (Read-Only Memory) is non-volatile and retains data even when the computer is powered off, unlike RAM which is temporary.

iii) The term modem stands for:

- A. Modular Demodulator
- B. Modulator Demodulator
- C. Memory Demodulation
- D. Main Demodulator

The correct answer is B: Modulator Demodulator.

A modem converts digital signals from a computer into analog signals for transmission over telephone lines and vice versa.

iv) A software that is designed to help the user perform a specific task is a:

- A. System software
- B. Operating system
- C. Utility software
- D. Application software

The correct answer is D: Application software.

Application software allows users to carry out specific tasks like word processing or graphic design, unlike system or utility software which manage or optimize the system.

v) Which of these is a type of wireless transmission media?

- A. Coaxial cable
- B. Twisted-pair cable
- C. Satellite
- D. Fiber optic cable

The correct answer is C: Satellite.

Wireless media transmit data through air or space using electromagnetic waves, whereas cables are wired media.

vi) What is the illegal copying and distribution of software called?

- A. Hacking
- B. Piracy
- C. Phishing
- D. Spamming

The correct answer is B: Piracy.

Software piracy involves unauthorized copying, distribution, or use of software.

vii) Which one of the following is not a common computer port?

- A. USB port
- B. HDMI port
- C. Ethernet port
- D. CPU port

The correct answer is D: CPU port.

CPU does not have a dedicated port; it is a processor inside the computer. USB, HDMI, and Ethernet are standard external ports.

viii) The term online refers to:

- A. A user watching a video
- B. A user being connected to the internet
- C. A user running a program
- D. A user typing a document

The correct answer is B: A user being connected to the internet.

Being online means having an active connection to a network, typically the internet.

ix) The process of arranging data in ascending or descending order is called:

- A. Filtering
- B. Sorting
- C. Searching
- D. Merging

The correct answer is B: Sorting.

Sorting organizes data systematically to make it easier to read or analyze.

x) A computer that provides services to other computers in a network is called a:

- A. Client
- B. Workstation
- C. Server
- D. Node

The correct answer is C: Server.

A server manages network resources and provides services like file storage, printing, or web hosting to client computers.

2. Match the terms in Column A with their descriptions in Column B.

- i. Scanner → C: An input device that converts a physical document into a digital file.
- ii. Plotter → D: An output device used to produce large high-quality prints.

- iii. Printer → F: An output device that produces a hard copy of a document.
- iv. Speaker → B: A device that converts electrical signals back into sound.
- v. Microphone → A: An input device that converts sound signals into electrical signals.

SECTION B (75 Marks)

Attempt ALL questions from this section.

3. a) State three (3) differences between a desktop and a laptop computer.

A desktop is stationary, larger, and usually requires external power, while a laptop is portable, compact, and powered by a battery. Desktops are easier to upgrade, whereas laptops have limited upgrade options.

- b) Give two (2) advantages of a laptop.

Portability, allowing users to work anywhere, and built-in components like keyboard, touchpad, and display, reducing the need for external peripherals.

- c) Why is a laptop considered more portable than a desktop?

A laptop is lightweight, compact, and has an integrated battery, making it easy to carry and use without requiring constant connection to external power sources.

4. a) Explain the purpose of a computer power supply unit (PSU).

The PSU converts AC electrical power from the wall socket into DC power suitable for computer components and ensures stable voltage to prevent damage.

- b) Mention three (3) external ports found on the back of a system unit.

USB port, HDMI port, Ethernet port.

- c) Briefly explain the difference between a bus and a port.

A bus is a communication pathway inside the computer connecting components, whereas a port is an external interface for connecting devices to the computer.

5. a) Differentiate between magnetic storage and optical storage.

Magnetic storage uses magnetic fields to store data on disks or tapes, while optical storage uses lasers to read and write data on discs.

b) Give two (2) examples of each type of storage media mentioned in 5 (a).

Magnetic: Hard disk, magnetic tape.

Optical: CD, DVD.

c) Why is a flash drive a popular storage device?

Flash drives are compact, portable, have high storage capacity, and provide fast read/write speeds without requiring power to retain data.

6. a) Explain what computer maintenance is.

Computer maintenance involves regularly inspecting, cleaning, updating, and repairing hardware and software to ensure optimal performance.

b) State any three (3) reasons why computer maintenance is important.

Prevents system failures, extends the lifespan of hardware, and ensures data security and reliability.

c) Briefly describe the process of performing a disk cleanup.

Disk cleanup removes unnecessary files, temporary files, and cached data to free up storage space and improve system performance.

7. a) Define social media.

Social media refers to online platforms that allow users to create, share, and interact with content or communities.

b) Give two (2) examples of social media platforms.

Facebook, Twitter.

c) Analyze two (2) advantages and two (2) disadvantages of using social media.

Advantages: Facilitates communication and networking; provides access to information.

Disadvantages: Risk of privacy breaches; potential spread of misinformation.

8. a) What is a user account in a computer system?

A user account is a profile that allows individuals to access and use computer resources with specific permissions.

b) Explain the difference between a standard user account and an administrator account.

A standard account has limited access and cannot install software or change system settings, whereas an administrator account has full control over the system.

c) State two (2) reasons why it is important to have multiple user accounts on a shared computer.

Ensures security and privacy for individual users; allows customized settings for each user.

9. a) Explain the term internet safety.

Internet safety refers to practices and precautions taken to protect users from online threats such as malware, scams, and privacy breaches.

b) Mention four (4) common threats to internet safety.

Phishing attacks, malware, identity theft, cyberbullying.

c) Give two (2) tips for protecting yourself from online threats.

Use strong passwords and enable two-factor authentication; avoid clicking on suspicious links or downloading unknown files.

10. a) What is a word processor?

A word processor is software that allows users to create, edit, format, and print text documents.

b) Describe the following features of a word processor:

i. Spell checker – Automatically detects and corrects spelling errors.

ii. Thesaurus – Provides synonyms and antonyms for words to improve writing.

iii. Find and Replace – Searches for specific text and replaces it with new text.

c) Briefly explain the purpose of a Header and Footer.

Headers and footers display information such as page numbers, titles, or dates at the top or bottom of each page for consistent formatting and reference.

SECTION C (10 Marks)

Attempt ONLY ONE (1) question from this section.

11. A supermarket uses a spreadsheet to track the prices of various items.

a) Write a formula to calculate the total cost for each item in column D.

= B2 * C2

b) What formula would you use to find the average price of all items in cell B7?

=AVERAGE(B2:B6)

c) Write a formula to find the minimum price of an item in the list.

=MIN(B2:B6)

d) What formula would you use to find the total quantity of all items sold?

=SUM(C2:C6)

12. a) What is an information system?

An information system is a structured combination of people, hardware, software, data, and procedures that collects, processes, stores, and distributes information to support decision-making.

b) List the five (5) components of an information system.

Hardware, Software, Data, People, Procedures.

c) Briefly explain the importance of a well-designed information system for an organization.

It improves efficiency, supports decision-making, enhances data accuracy, and ensures timely access to relevant information.

d) What is the main purpose of a CPU fan?

The CPU fan cools the processor by dissipating heat, preventing overheating, and maintaining optimal performance.