Candidate's Examination Number .....

**SMZ**

**ZANZIBAR EXAMINATION COUNCIL**

**FORM THREE ENTRANCE EXAMINATION, 2001**

**063 INFORMATION AND COMPUTER STUDIES**

**Time: 2:30 Hours.**

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## 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.** | | |
| **4.** | | |
| **5.** | | |
| **6.** | | |
| **7.** | | |
| **8.** | | |
| **9.** | | |
| **10.** | | |
| **11.** | | |
| **12.** | | |
| **TOTAL** | | |

## SECTION A (15 Marks)

Answer all questions in this section.

1. Choose the correct answer and write its letter in the table below.

   i) Which device is primarily used to store temporary data while a computer is running?

   A: Hard disk

   B: RAM

   C: Flash drive

   D: CD-ROM

   ii) Which of the following is an example of output that can be both visual and tactile?

   A: Printer

   B: Touchscreen

   C: Monitor

   D: Scanner

   iii) What type of software is responsible for managing hardware resources and providing services to application programs?

   A: Application software

   B: System software

   C: Programming language

   D: Utility software

   iv) Which of the following is **not** considered a cloud computing service?

   A: Google Drive

   B: Dropbox

   C: Microsoft Excel

   D: iCloud

   v) Which device converts digital data into analog signals suitable for transmission over telephone lines?

   A: Modem

   B: Router

C: Switch

D: Hub

vi) A computer designed for a single user that combines all components in one unit is called:

A: Desktop

B: Mainframe

C: Microcomputer

D: Supercomputer

vii) Which of the following is **not** a feature of presentation software?

A: Slide transition

B: Slide sorter

C: Font formatting

D: Spreadsheet calculation

viii) Which of the following devices is used to assist visually impaired students in reading text on a screen?

A: Screen magnifier

B: Braille printer

C: Joystick

D: Barcode reader

ix) Identify the software that protects computers from malicious programs.

A: Firewall

B: Antivirus

C: Disk defragmenter

D: Word processor

x) Which of the following represents a small personal network within a building?

A: LAN

B: WAN

C: MAN

D: PAN

2. Match the items in Column A with the correct descriptions in Column B. Write the letter of the correct match in the table below.

**COLUMN A**

i. Device that amplifies signals in a network

ii. Device that tracks moving objects using satellites

iii. Device that detects light intensity and converts it to an electrical signal

iv. Device used to read magnetic stripes on cards

v. Device that outputs sound

**COLUMN B**

A. Microphone

B. GPS tracker

C. Speaker

D. Card reader

E. Repeater

F. Modem

G. Touchpad

H. Webcam

## SECTION B (75 Marks)

Answer all questions in this section.

3. Explain three ways in which digital technology has improved communication in society.

4. Describe two limitations of first-generation programming languages and how they affected computer operation.

5. a) Identify five icons typically found on a Linux desktop environment.
   b) Compare and contrast CLI (Command Line Interface) and GUI (Graphical User Interface) in terms of usability and learning curve.

6. a) Explain the differences between an optical mouse and a touchpad.
   b) Differentiate between a Magnetic Ink Character Recognition (MICR) device and a Radio Frequency Identification (RFID) scanner.
   c) List two characteristics of secondary memory.
   d) Identify three examples of removable storage media.

7. a) Define a computer lab and its purpose.
   b) Outline four key safety precautions when operating computers in a lab.
   c) List three potential causes of permanent damage to a computer.

8. a) Define the following terms:
   i) Software
   ii) File
   iii) Folder
   b) Explain four standard mouse operations and their functions.

9. a) Describe how to save a text document to a USB drive.
   b) Mention five versions of Microsoft Office released in the last two decades.

10. a) Define computer networking.
    b) Explain star topology with a labeled diagram.
    c) Compare two differences between a LAN and a WAN.

## SECTION C (10 Marks)

Answer only one question from this section.

11. a) Define spreadsheet software.
    b) Given a dataset of sales figures:
    i) Write a formula to calculate the total sales for all products.
    ii) Write a formula to determine the highest sales value.
    iii) Calculate the average sales per product.

12. a) Differentiate between "Save" and "Save As" in a word processor.

    b) List the essential hardware components required to establish internet connectivity in an office.