SMZ

ZANZIBAR EXAMINATION COUNCIL

FORM THREE ENTRANCE EXAMINATION, 2018

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.

Question number	THIS PART FOR EXAMINER'S ONLY	
	MARKS	SIGNATURE
1.		
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TOTAL		

SECTION A (15 Marks)

Attempt ALL questions from this section.

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

i) Which one of the following is not a characteristic of a computer?

A. Accuracy

B. Versatility

C. Volatility

D. Diligence

The correct answer is C: Volatility.

Computers are accurate, versatile, and diligent; volatility is not a characteristic but refers to temporary storage like RAM.

ii) A device that connects multiple computers in a network is a:

A. Router

B. Modem

C. Hub

D. Printer

The correct answer is C: Hub.

A hub connects multiple computers in a network and allows them to communicate with each other.

iii) The term cold booting refers to:

A. Restarting a computer that is already running

B. Starting a computer from a powered-off state

C. Shutting down a computer

D. Installing an operating system

The correct answer is B: Starting a computer from a powered-off state.

Cold booting is the process of turning on a computer from a completely off state.

iv) Which of the following is an example of an input device?

A. Speaker

B. Monitor

C. Keyboard

D. Printer

The correct answer is C: Keyboard.

A keyboard allows the user to input data into a computer.

v) The most popular type of computer used for personal use is the:

A. Supercomputer

B. Mainframe

C. Laptop

D. Tablet

The correct answer is C: Laptop.

Laptops are portable and widely used by individuals for personal computing.

vi) A software that helps in managing large amounts of data in an organized way is a:

A. Word processor

B. Spreadsheet program

C. Database management system

D. Graphics program

The correct answer is C: Database management system.

A DBMS organizes and manages data efficiently for easy retrieval and manipulation.

vii) What is a collection of web pages and related content that is identified by a common domain name?

A. A search engine

B. A web page

C. A blog

D. A website

The correct answer is D: A website.

A website is a collection of web pages under a single domain name.

viii) The term URL stands for:

A. Universal Remote Link

B. Uniform Resource Locator

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C. Universal Resource Locator

D. Uniform Resource Link

The correct answer is B: Uniform Resource Locator.

A URL specifies the address of a resource on the internet.

ix) Which of the following is a type of system software?

A. Antivirus software

B. Microsoft Word

C. Adobe Photoshop

D. Google Chrome

The correct answer is A: Antivirus software.

System software manages computer resources and includes antivirus software to protect the system.

x) A program that can replicate itself and spread to other computers without human intervention is a:

A. Virus

B. Worm

C. Trojan horse

D. Spyware

The correct answer is B: Worm.

A worm spreads automatically across networks without user action.

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

i. RAM → B: A volatile memory that temporarily stores data.

ii. ROM → D: A permanent storage device that is used to store the operating system.

iii. CPU → E: The brain of the computer.

iv. Hard disk → A: A storage device that is non-volatile and permanent.

v. Motherboard → C: The main circuit board of a computer.

SECTION B (75 Marks)

Attempt ALL questions from this section.

3. a) Define computer generations.

   Computer generations refer to stages of development of computers, categorized by the technology used and performance improvements over time.

   b) State the main technology used in the first, second, and third computer generations.

   First generation: Vacuum tubes

   Second generation: Transistors

   Third generation: Integrated circuits

   c) Mention two (2) characteristics of computers in the fifth generation.

   Artificial intelligence capabilities and high-speed processing.

4. a) What is a file extension?

   A file extension is a suffix at the end of a file name that indicates the file type or format.

   b) Give two (2) examples of file extensions for the following:

   i. Word documents: .doc, .docx

   ii. Image files: .jpg, .png

   c) Explain the purpose of a folder in a computer system.

   A folder is used to organize and store files, making it easier to manage and retrieve data.

5. a) Explain the difference between GUI and CLI.

   GUI (Graphical User Interface) allows users to interact with a computer using graphical elements like icons and menus, while CLI (Command Line Interface) requires users to type commands.

   b) State two (2) advantages of using a GUI.

   Easier to learn and use, visually intuitive for users.

   c) Give one (1) example of an operating system that uses a CLI.

   MS-DOS

6. a) What is e-learning?

   E-learning is the use of electronic media and technologies to access educational content remotely.

   b) State three (3) advantages of using e-learning.

   Flexibility in learning schedule, access to a wide range of resources, and reduced travel costs.

   c) Mention two (2) disadvantages of e-learning.

   Limited social interaction and dependence on internet connectivity.

7. a) Briefly explain the term online banking.

   Online banking allows users to conduct financial transactions over the internet.

   b) Give two (2) examples of online banking services.

   Fund transfers, Bill payments

   c) State two (2) advantages and two (2) disadvantages of online banking.

   Advantages: Convenience, 24/7 access to services

   Disadvantages: Risk of fraud, technical issues

8. a) What is data integrity?

   Data integrity ensures that data is accurate, consistent, and reliable throughout its lifecycle.

   b) Explain two (2) ways to ensure data integrity.

   Regular backups, Access control to prevent unauthorized changes

   c) Briefly describe the concept of data redundancy.

   Data redundancy occurs when the same data is stored in multiple places, which can lead to inconsistencies.

9. a) Explain what computer ethics is.

   Computer ethics is the study of moral principles that guide the use of computers and digital technologies.

   b) Mention three (3) ethical issues related to computer use.

   Privacy violations, software piracy, cyberbullying

   c) Give two (2) ways to promote ethical computer use.

   Educating users about responsible use, Implementing policies and guidelines

10. a) What is a computer laboratory?

   A computer laboratory is a room equipped with computers for learning, research, or practical work.

   b) State four (4) safety precautions to be observed in a computer laboratory.

   Avoid eating or drinking near computers, ensure proper cable management, maintain ventilation, handle equipment carefully.

   c) Mention three (3) things that can destroy your computer.

   Power surges, liquid spills, excessive dust accumulation

SECTION C (10 Marks)

Attempt ONLY ONE (1) question from this section.

11. a) Write a formula to calculate the total sales for Shop 1 in cell E2.

   = B2 + C2 + D2

   b) What formula would you use to find the average sales for all shops in January in cell B7?

   = AVERAGE(B2:B6)

   c) What is the formula to find the highest sales among all shops for the month of February?

   = MAX(C2:C6)

   d) Write a formula to find the total sales for all shops for the entire period.

   = SUM(B2:D6)

12. a) What is networking?

   Networking is the practice of connecting computers and devices to share resources and communicate.

   b) Give two (2) differences between a peer-to-peer and a client-server network.

   Peer-to-peer: All devices have equal status, no dedicated server required

   Client-server: Centralized server manages resources, clients request services from the server

   c) Explain the purpose of a router in a network.

   A router directs data between devices on different networks and connects them to the internet.

d) State two (2) advantages of networking in an organization.

Resource sharing, Improved communication and collaboration

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