

**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 : 2020

Instructions

1. This paper consists of section A, B and C.
2. Answer all questions.
3. Communication devices and any unauthorised materials are **not** allowed in the examination room.
4. Write your **Examination Number** on every page of your answer booklet(s).

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

i) What is the main function of a hard disk in a computer system?

- A. Store saved information
- B. Store temporary data
- C. Process data
- D. Process information

Answer: A. **The hard disk is a storage device that stores saved information permanently.**

ii) Given the cells B2, B3, B4 and C1 with values 3, 5, 10 and 13 respectively, what will be the output when the function =COUNT(B2:B4) is applied?

- A. 4
- B. 3
- C. 18
- D. 31

Answer: B. **COUNT counts the number of numeric entries in the range B2:B4, which are 3 values (3, 5, 10).**

iii) A key which enables a computer user to type capital and small letters is called

- A. function key
- B. special key
- C. caps lock key
- D. control key

Answer: C. **Caps lock key switches between typing capital and small letters.**

iv) Which of the following devices is not an output device?

- A. Visual display unit
- B. Projector
- C. Bar code reader
- D. Printer

Answer: C. **A bar code reader is an input device, not an output device.**

v) What causes a red line wave to appear under text during typing in Microsoft word?

- A. Grammatical error

- B. Spelling error
- C. Content error
- D. Logical error

Answer: B. **A red wavy line indicates a spelling error in Microsoft Word.**

vi) Suppose you have been requested to calculate the total value of all data in Figure 1. Which formula will you use?

Figure 1 shows numbers in cells A1, A2, and A3.

- A. =SUM(A1:A3)
- B. =SUM(A1:3)
- C. =ADD(A1:A3)
- D. =SUM(A1+A3)

Answer: A. **=SUM(A1:A3) correctly adds the values from A1 through A3.**

vii) Which feature of an operating system is applicable to a multi-tasking operating system?

- A. Running many programs at a time
- B. Many users access a computer at a time
- C. Running a single program at a time
- D. One user access a computer at a time

Answer: A. **Multi-tasking operating systems allow running multiple programs simultaneously.**

viii) What is the function of icon as used in Microsoft word? (The icon shown is Save icon).

- A. Save the document
- B. Paste the document
- C. Format the document
- D. Copy the document

Answer: A. **The Save icon is used to store the current document permanently.**

ix) Which is an example of primary source of information?

- A. Encyclopedias
- B. Newspaper
- C. Diaries
- D. Dictionaries

Answer: C. **Diaries are primary sources because they are original records created at the time of the event.**

x) What is the major disadvantage of an electronic mail?

- A. Not reliable
- B. Spread computer virus
- C. Difficult to use
- D. Very expensive

Answer: B. **Emails can spread computer viruses through infected attachments or links.**

2. Match the following descriptions of shortcut keys in Microsoft Word in List A with their corresponding key combinations in List B.

List A

- i) Key combination which is used to close the current document.
- ii) Key combination which is used to open a saved document.
- iii) Key combination which underlines a selected text.
- iv) Key combination which is used to print a document.
- v) Key combination which is used to select the whole document at once.

List B

- A. Ctrl + O
- B. Ctrl + Tab
- C. Ctrl + U
- D. Shift + F7
- E. Ctrl + P
- F. Ctrl + X
- G. Ctrl + F4
- H. Ctrl + A

Answers.

- i) G. Ctrl + F4. **This closes the current document window.**
- ii) A. Ctrl + O. **This opens an existing saved document.**
- iii) C. Ctrl + U. **This applies underline formatting to the selected text.**
- iv) E. Ctrl + P. **This opens the print dialog to print a document.**
- v) H. Ctrl + A. **This selects all text in the current document.**

3. For each of the following statements write True if the statement is correct or False if a statement is not correct in the spaces provided.

(i) Calculators and mobile telephones are examples of computers.

True. They perform computing tasks such as processing and storing data, though on a smaller scale.

(ii) Computers are used in offices to create, edit, format and store office documents.

True. Office software like Microsoft Word and Excel enables these functions.

(iii) The motherboard is an example of a peripheral device.

False. The motherboard is an internal component that connects all major parts of the computer, not a peripheral device.

(iv) Mesh and ring topology are examples of logical topology.

True. These are arrangements of how data flows in a network, classified under logical topology.

(v) Microcomputers are used in schools and hospitals.

True. They are widely used for education, patient data management, and administration.

4. (a) By giving two examples, briefly explain the importance of application software as used at schools.

Application software such as Microsoft Word is important in schools because it allows students and teachers to prepare documents like assignments, exams, and reports quickly and neatly.

Software such as Microsoft Excel or database applications is important because it helps schools in managing student records, marks, and financial accounts more efficiently.

(b) Explain three hardware criteria to consider when selecting a computer.

One criterion is the processor speed, because a faster processor allows the computer to handle more tasks and run applications smoothly.

Another criterion is the memory (RAM), since higher RAM enables the computer to multitask and run large programs without slowing down.

A third criterion is the storage capacity, because sufficient hard disk or SSD space is needed to store software, student files, and other school data securely.

5. Suppose an ICT teacher assigned you to print a report typed in Microsoft Word program. In printing process the screenshot given in Figure 2 appears. Study it carefully and answer the questions that follow:

(a) Which steps would you follow in order to achieve the process in Figure 2?

(i) Open the document in Microsoft Word.

(ii) Click on “File” then choose “Print” from the menu.

(iii) Select the printer, adjust the print settings shown in Figure 2, and click the Print button.

(b) What is the name of the printer selected in Figure 2?

The name of the printer selected is **HP ePrint**.

(c) Why do you think the printer selected will print the report?

The printer selected will print the report because its status shows “Ready”, which means it is correctly connected, installed, and functioning without errors.

(d) Which letter shows the button which you would use to select landscape?

The letter **E** shows the button for selecting orientation, where you can change from portrait to landscape.

(e) Which letter shows the button which you would use to set A4 paper?

The letter **F** shows the button for selecting the paper size, where you can choose A4.

(f) If you are asked to print a report on both sides automatically, which letter would you use to change the printer settings in order to accomplish this task?

The letter **D** shows the option “Print One Sided”. You would click it and change to “Print on Both Sides” to enable duplex printing.

(g) With this setting, is it possible to print only page 10? Give one reason.

No, it is not possible because the current setting shows “Print All Pages”, which means the entire document will be printed unless the option is changed to specify a particular page.

6. (a) Differentiate the term brown-out from blackout as used in computer handling.

A brown-out is a temporary drop in voltage supply below the normal level. Computers may still run during a brown-out, but they can experience malfunctions or damage due to insufficient voltage.

A blackout is a complete loss of power supply where no electricity is available at all. In a blackout, computers and all connected devices shut down immediately unless they are supported by backup power.

(b) A computer laboratory in your school has a problem of low voltage and sometimes power goes off. Which two devices would you recommend to be a solution to this problem?

(i) An Uninterruptible Power Supply (UPS), which provides temporary backup power during blackouts and stabilizes voltage during fluctuations.

(ii) A voltage stabilizer, which regulates the voltage supplied to computers and protects them from damage caused by low or fluctuating voltage.

(c) What are the three disadvantages of voltage fluctuation to the computer?

(i) Voltage fluctuation can cause sudden system crashes or unexpected shutdowns, leading to loss of unsaved data.

(ii) It may damage sensitive computer components such as the power supply unit, motherboard, or hard disk over time.

(iii) Frequent fluctuations shorten the lifespan of computers and connected devices, increasing maintenance and replacement costs.

7. (a) Outline four advantages of star topology.

(i) Star topology is easy to install and set up because each device is connected to a central hub or switch.

(ii) It is easy to identify and troubleshoot faults since failure of one device does not affect the whole network.

(iii) Adding or removing devices is simple and does not disrupt the network operation.

(iv) Performance is high because each device has a dedicated communication line with the central hub, reducing data collisions.

7. (a) Outline four advantages of star topology.

(i) Star topology is easy to install and configure since each device is connected directly to a central hub or switch.

(ii) Troubleshooting is straightforward because a fault in one cable affects only one device and not the entire network.

(iii) It is easy to add or remove devices without disrupting the network, making it highly flexible.

(iv) The central hub or switch controls communication, which reduces data collisions and improves performance.

(b) Briefly describe four considerations when choosing a network topology.

(i) Cost – The cost of cables, devices, and installation should be affordable for the organization.

(ii) Reliability – The topology chosen should be stable and less prone to total failure.

- (iii) Scalability – The network should allow easy addition of more devices as the organization grows.
- (iv) Performance – The topology should provide high speed and efficiency in data transmission.

8. (a) Differentiate workbook from worksheet.

A workbook is a complete Excel file that contains one or more worksheets within it. It acts as the container for all sheets.

A worksheet is a single page or tab within the workbook where data, formulas, and charts are entered and processed.

(b) Describe two types of cell referencing. Give one example for each.

(i) Relative referencing – The cell reference changes automatically when a formula is copied to another cell. Example: In $=A1+B1$, if copied down, it becomes $=A2+B2$.

(ii) Absolute referencing – The cell reference remains fixed, even when the formula is copied. Example: $=\$A\$1+\$B\1 will not change when copied to another cell.

(c) List four procedures required to rename a worksheet called sheet3 to Maths.

(i) Open the workbook and locate sheet3 at the bottom tab.

(ii) Right-click on the sheet3 tab.

(iii) Select the “Rename” option from the menu.

(iv) Type the new name “Maths” and press Enter.

9. (a) Explain one negative effect of internet on cultural changes.

The internet has contributed to erosion of local cultures as young people adopt foreign lifestyles, languages, and behaviors seen online, which may lead to loss of traditional values and practices.

(b) Briefly explain four advantages of electronic mail (e-mail).

(i) Email is fast and allows instant communication across the globe.

(ii) It is cost-effective compared to traditional methods like postal services.

(iii) Emails can carry attachments such as documents, images, and videos.

(iv) They provide a written record of communication that can be stored and retrieved easily.

10. Explain five ways of preventing computer virus.

One way is installing and regularly updating antivirus software to detect and remove viruses.

Another way is avoiding opening suspicious email attachments or links from unknown sources.

Keeping operating systems and software updated prevents exploitation of security vulnerabilities.

Using firewalls helps block unauthorized access and malicious activities.

Regularly backing up data ensures recovery in case files are corrupted by viruses.