



# NATIONAL UNIVERSITY OF LESOTHO

---

BEP1310 – FUNDAMENTALS OF ICT

## Final Examination

---

Faculty : Education  
Programme : B.Ed. Primary – Part time  
Date/Day : July, 2023  
Duration : **3 hours**

### INFORMATION FOR CANDIDATE

1. This examination is worth **50%** of the overall semester assessment.
2. The total number of marks available for this examination is **100**.
3. This examination paper contains **FOUR (4)** sections in **NINE (9)** pages **including** the cover page.

### INSTRUCTION TO CANDIDATE

1. Answer **ALL** questions in Section **A, B, C** and **D**.

**Section A (Answer all questions) [Multiple Choice Section]**

**[Total Marks 20]**

**EACH QUESTION CARRIES ONE (1) MARK.**

**NOTE: Write only the letter that represents the correct answer**

1. Which of the following is the smallest unit of data in a computer?
  - A. Bit
  - B. KB
  - C. Nibble
  - D. Byte
  
2. Which of the following are physical devices of a computer?
  - A. Hardware
  - B. Software
  - C. System Software
  - D. Package
  
3. Which of the following is not an essential function of a word processing software package?
  - A. Indexing
  - B. Saving
  - C. Editing
  - D. Formatting
  
4. RAM storage is –
  - A. Secondary
  - B. Auxiliary
  - C. Tertiary
  - D. Primary
  
5. If you don't want a term or phrase when using a search engine, it is best to use the:
  - A. '-' symbol
  - B. '~' symbol
  - C. '|' symbol

- D. '\*' symbol
6. An example of a block-move operation is
- A. Cut and Paste
  - B. Deleting a character
  - C. Inserting a character
  - D. Both (B) and (C)
7. What is the full form of CPU?
- A. Computer Processing Unit
  - B. Computer Principle Unit
  - C. Central Processing Unit
  - D. Control Processing Unit
8. What kind of file does the png extension usually refer to?
- A. Text file
  - B. Image file
  - C. Audio file
  - D. Adobe Acrobat file
9. What kind of file does the wav extension usually refer to?
- A. Text file
  - B. Image file
  - C. Audio file
  - D. Adobe Acrobat file mm
10. Which of the following unit is responsible for converting the information received from the computer to a user understandable format?
- A. Output Unit
  - B. Memory Unit
  - C. Input Unit
  - D. Arithmetic & Logic Unit
11. The following short cut keys are used to paste copied information.
- A. CTRL+X
  - B. CTRL+V
  - C. CTRL+Z
  - D. CTRL+Y
12. The following short cut keys are used to remove information.
- A. CTRL+X
  - B. CTRL+V
  - C. CTRL+Z
  - D. CTRL+Y

13. The following short cut keys are used to redo actions on the computer.
  - A. CTRL+X
  - B. CTRL+V
  - C. CTRL+Z
  - D. CTRL+Y
  
14. By default, when you open a presentation application, you get a blank:
  - A. Page
  - B. WorkSheet
  - C. Slide
  - D. Database
  
15. In Ms, Excel, the following function is used to return the number of numeric entries in the selected range of cells.
  - A. COUNTA
  - B. COUNT
  - C. SUM
  - D. Both B and B
  
16. Which of the following is designed to control the operations of a computer?
  - A. User
  - B. System Software
  - C. Application Software
  - D. Utility Software
  
17. Which of the following devices provides the communication between a computer and the outer world?
  - A. Compact
  - B. Input/Output
  - C. Drivers
  - D. Storage
  
18. If you wish to sort your students in the order of their performance in a recent test they wrote, starting with the lowest student, you will have to:
  - A. Select all marks, select the sort and filter tab, select the descending order
  - B. Select some the marks, select the sort and filter tab, select the descending order
  - C. Select some the marks, select the sort and filter tab, select the ascending order
  - D. Select all marks, select the sort and filter tab, select the ascending order
  
19. Name the computer part that is connected to all other aspects of a computer and allows them to communicate and work together.
  - A. Operating System

- B. Motherboard
- C. Output Device
- D. Disk Drive

20. Part of a computer that allows a user to put information into the computer is called \_\_\_\_\_.

- A. Output Device
- B. Input Device
- C. Operating System
- D. Software

**Section B (Answer all questions)**

**[Total Marks 15]**

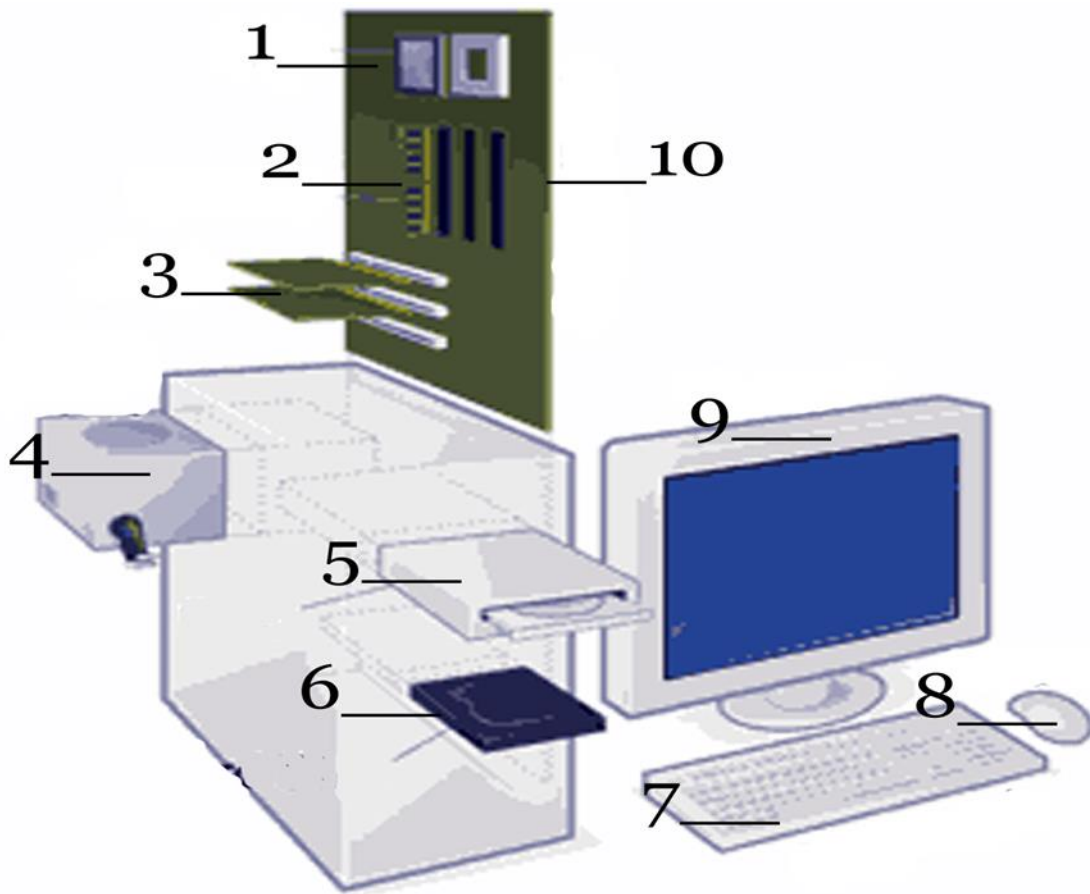
1. Fill in the blank spaces with the words given in the table below to validate the following incomplete statements. Each correct filling carries one (1) mark. **NOTE:** Write only the answer to each question. [5]

- a. The \_\_\_\_\_ is the foundation of your computer's software. Everything that runs on the computer is based on this in one form or another and its stability and functionality will determine what you can get out of the computer.
- b. \_\_\_\_\_ are some small programs which performs specific task, usually related to managing a computer, its devices, or its programs.
- c. Adjustments to the work equipment, such as the location of the screen(s), \_\_\_\_\_, paperwork and chair are necessary to avoid visual discomforts.
- d. Proper use necessitates placing your \_\_\_\_\_ at approximately elbow height with the surface at a comfortable angle.
- e. If your computer is set to use a \_\_\_\_\_, it is using electricity unnecessarily. Consider instead setting your computer monitor to turn off after a set period of time.

Utility software,	Mouse,	Screen,
-------------------	--------	---------

Operating System, Screen saver,	Keyboard, Monitor,	Utility program, Application software,
------------------------------------	-----------------------	---

2. Use words provided in the table below to label the following diagrams. Each correct label carries one (1) mark. [10]



Keyboard, Power Supply, CPU (Microprocessor), Motherboard, Monitor, Expansion cards, Secondary storage (Hard disk), Primary storage (RAM), Mouse, Optical disk drive
--

**Section C (Answer all questions)**

**[Total Marks 15]**

**INDICATE WHETHER EACH OF THE FOLLOWING STATEMENTS IS TRUE OR FALSE. EACH STATEMENT CARRIES ONE (1) MARK.**

1. A digital camera is an input device used to take photographs.
2. The Language that the computer can understand is called Machine Language. Each computer has its own Machine Language which is made of streams of 0's and 1's.
3. E-mail is still the most popular online communication technology.
4. A scanner is an output device.
5. Worms and Trojan Horses are easily detected and eliminated by antivirus software.
6. A terabyte is equal to 1 million gigabytes.
7. Dot-matrix, Deskjet, Inkjet and Laser are all types of Printers.
8. Twitter is an online social networking and blogging service.
9. Microsoft and Apple are two examples of how open-source companies can become global leaders in their industries.
10. Flash memory has many moving parts, making it less durable and shock resistant than other types of media.
11. Linux is an open-source operating system.
12. An intranet is an Internet-like network inside the enterprise.
13. An SD card is an output device.
14. CD stands for Collective Disk.
15. A computer accepts data, called output.

**Section D (Answer all questions)**

**[Total Marks 50]**

1. Clearly explain the following words as used in ICT: [4]
  - a. Personal Area Network
  - b. Bus
2. Clearly describe the difference between the following words as applied in ICT. [4]
  - a. Client and server
  - b. Virus and worm
3. Mapheello and Tlhoriso will be attending an Internet workshop conducted by you. Take a minute to remember how different life was in 1991. If you wanted to call a friend you would have to use a landline, because mobile technology was still many years away from hitting the mainstream. If you wanted to send a written message to relatives overseas, you would have to use the post office. So much has changed in the last 20 years. Answer the questions below to help you to prepare for the workshop.
  - a. State any **three (3)** revolutionary Internet changes that have taken place in the digital sector since 1991 that you will make Mapheello and Thoriso aware of. [3]
  - b. There are several top future trends of the Internet technology that everyone must be ready for by 2030. Which **three (3)** trends will you mention in the workshop? [3]
  - c. Suppose that this workshop is going to rely only on electronic means. Hence, you will be offering non-face-to-face distant based education (e-learning). Discuss the benefits your workshop attendants and yourself as the teacher will enjoy for using e-learning. [3]
  - d. Although e-learning provides countless advantages, it has some disadvantages as well. Explain **two (2)** disadvantages that you might experience for this workshop. [4]



- e. Mention any **two (2)** examples of e-learning platforms that you can use for the workshop. [2]
  - f. Which **two (2)** common web browsers can Mapheello and Tlhoriso use to browse the Internet? [2]
  - g. A number of attacks may arise with your trainees' computers if no proper security measures are taken by them. Which **three (3)** ways can their computers behave due to being hacked? [3]
4. A microprocessor is a multipurpose, programmable device that accepts digital data as input and processes it according to instructions stored in its memory.
- a. Performance of the microprocessor depends on several factors. Mention and explain **two (2)** of these factors. [4]
  - b. The Central Processing Unit is considered to comprise two major components. Which are they and what are their functions? [4]
5. Although one may manage and protect his data with proper use of software, his data may get lost or damaged due to hardware problems. Analyse the following scenarios for possible hardware threats. Indicate if a solution exists or not for each scenario. If a solution exists, mention it. [4]
- a. Your PC may be busy writing data to the disk and in a sudden power may go out. Obviously, you will be afraid if it lost your data.
  - b. You call a repairman for a service call. He runs a diagnostic program from a CD. It's very easy for this CD to become infected and spread the infection to your computer.
6. Using well labeled diagrams, show the difference between Bus, Star, Tree, Ring and mesh topologies. [10]