



AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCE
DEPARTMENT OF REHABILITATION MEDICINE
BACHELOR OF SCIENCE IN PHYSIOTHERAPY
END OF MAY- AUGUST 2026 TRIMESTER EXAMINATIONS

UNIT CODE: AIU 113 UNIT NAME: INFORMATION COMPUTER

TECHNOLOGY (main exam)

DATE: 6TH AUGUST 2026

TIME: TWO HOURS

START: 5:30PM STOP : 7:30 PM

INSTRUCTIONS (physical exams)

1. Do not write on this question paper

(Marks and questions distribution as per program curriculum.)

INSTRUCTIONS (Online examinations)

1. This exam is marked out of 70 marks
2. This Examination comprises 3 Sections
3. This online exam shall take 2 Hours
4. Late submission of the answers will not be accepted
5. Ensure your web-camera is on at all times during the examination period
6. No movement is allowed during the examination
7. Idling of your machine for 5 min or more will lead to lock out from the exam

8. The Learning Management System (LMS) has inbuilt integrity checks to detect cheating
9. Any aspect of cheating detected during and or after the exam administration will lead to nullification of your exam
10. In case you have any questions call the invigilator for this exam on Tel. 0705833434 and or the Head of Department on Tel 0720491032
11. For adverse incidences please write an email to: amiu.examinations@amref.ac.ke

SECTION A. Multiple choice question. Answer all question. (30 Marks)

1. Personal Computer uses a number of chips mounted on a circuit board called

- A. Microprocessor
- B. System Board
- C. Daughter Board
- D. Mother Board

2. Which of the following is the correct abbreviation of computer.

- A. Commonly Occupied Machines Used in Technical and Educational Research
- B. Commonly Operated Machines Used in Technical and Environmental Research
- C. Commonly Oriented Machines Used in Technical and Educational Research
- D. Commonly Operated Machines Used in Technical and Educational Research

3. Which of the following is the correct definition of [computer](#).

- A. Computer is a machine or device that can be programmed to perform arithmetical or logic operation sequences automatically
- B. Computer understands only binary language which is written in the form of 0s & 1s
- C. Computer is a programmable electronic device that stores, retrieves, and processes the data
- D. All of the mentioned

4. What is the full form of CPU?

- A. Computer Processing Unit
- B. Computer Principle Unit
- C. Central Processing Unit
- D. Control Processing Unit

5. Which of the following language does the computer understand?

- A Computer understands only C Language
- B. Computer understands only Assembly Language
- C Computer understands only Binary Language
- D. Computer understands only BASIC

6. Which of the following computer language is written in binary codes only?

- A. Pascal
- B. Machine language
- C. C
- D. C#

7. Which of the following is the brain of the computer?

- A. Central Processing Unit
- B. Memory
- C. Arithmetic and Logic unit
- D. Control unit

8. Which of the following is not a characteristic of a computer?

- A. Versatility
- B. Accuracy
- C. Diligence
- D. I.Q.

9. Which of the following is the smallest unit of data in a computer?

- A. Bit
- B. KB
- C. Nibble
- D. Byte

10. Which of the following unit is responsible for converting the data received from the user into a computer understandable format?

- A. Output Unit
- B. Input Unit
- C. Memory Unit
- D. Arithmetic & Logic Unit

11. Which of the following monitor looks like a television and are normally used with non-portable computer systems?

- A. LED
- B. LCD
- C. CRT
- D. Flat Panel Monitors

12. Which of the following is not a type of computer code?

- A. EDIC
- B. ASCII
- C. BCD
- D. EBCDIC

13. Which of the following part of a processor contains the hardware necessary to perform all the

operations required by a computer?

- A. Controller
- B. Registers
- C. Cache
- D. Data path

14. Which of the following is designed to control the operations of a computer?

- A. User
- B. Application Software
- C. System Software
- D. Utility Software

15. Which of the following device use positional notation to represent a decimal number?

- A. Pascaline
- B. Abacus
- C. Computer
- D. Calculator

16. Which of the following is used in EBCDIC

- A. Super Computers
- B. Mainframes
- C. Machine Codes
- D. Programming

17. Which of the following are physical devices of a computer.

- A Hardware
- B Software
- C System Software
- D Package

18. Which of the following defines the assigned ordering among the characters used by the

computer.

- A. Accumulation
- B. Sorting
- C. Collating Sequence
- D. Unicode

19. Which of the following storage is a system where a robotic arm will connect or disconnect off-line mass storage media according to the computer operating system demands.

- A Magnetic
- B Secondary
- C Virtual
- D Tertiary

20. Which of the following is known as the interval between the instant a computer makes a request for the transfer of data from a disk system to the primary storage and the instance the operation is completed?

- A Disk utilization time
- B Drive utilization time
- C Disk access time
- D Disk arrival time

21. Which of the following devices provides the communication between a computer and the outer world?

- A. Compact
- B. I/O
- C. Drivers
- D. Storage

22. Which of the following are the input devices that enable direct data entry into a computer system from source documents?

- A. System Access devices
- B. Data acquiring devices
- C. Data retrieving devices
- D. Data Scanning devices

23. Which of the following is the device used for converting maps, pictures, and drawings into digital form for storage in computer.

- A. Image Scanner
- B. Digitizer
- C. MICR
- D. Scanner

24. Which of the following can access the server

- A. Web Client
- B. User
- C. Web Browser
- D. Web Server

25. Which of the following is known as the language made up of binary-coded instructions?

- A. High level
- B. BASIC
- C. C
- D. Machine

26. Which of the following package allows individuals to use personal computers for storing and retrieving their personal information?

- A. Personal assistance package

- B. Graphics package
- C. Spreadsheet package
- D. Animation package

27. Which of the following is created when a user opens an account in the computer system?

- A. SFD
- B. MFD
- C. Subdirectory
- D. RFD

28. Which of the following is a technique that marked the beginning of computer communications?

- A. User Environment
- B. Batch Environment
- C. Time Sharing
- D. Message passing

29. Which of the following is a type of technique in which dumb terminals are connected to a central computer system?

- A. Time Sharing
- B. Message passing
- C. Batch environment
- D. User environment

30. Which of the following service allows a user to log in to another computer somewhere on the Internet?

- A. e-mail
- B. UseNet
- C. Telnet

D. FTP

SECTION B: SHORT STRUCTURED QUESTION. ANSWER ALL QUESTION (20 Marks)

31. The evolution of computers started with the first generation to fifth generation. Discuss the various characteristics that each computer generation had. (5 Marks)

32. Briefly illustrate how computers can be used in the following thematic areas in health care:

- (i) Health care research
- (ii) Telehealth
- (iii) Health Sciences education
- (iv) Patient care
- (v) Administration of health services

(5 Marks)

33. Computer Security is an important concern in many organizations in this information age. The introduction of computers has resulted to computer crimes. Discuss the different computer crimes and ways of mitigating those (5 Marks)

34. Briefly highlight five challenges faced in trying to establish such systems in the health sector in the Republic of Kenya (5 marks)

35. Briefly explain how medical practice would change if non-physicians were to collect all medical data. (5 marks)

SECTION C: LONG STRUCTURED QUESTION. ANSWER ALL THE QUESTION. (20 MARKS)

36. A. A healthcare center is deploying a new Health Information System (HIS).

- I. List three functional HIS sub-modules and describe their clinical tracking responsibilities. (5 Marks)
- II. A regional healthcare facility needs to replace its legacy paper charting system with a modern digital workstation network. Differentiate between the functions of volatile RAM and permanent storage drives during patient data entry. (5 Marks)
- III. Define ransomware and outline three security defenses used to protect database servers from malicious infections. (5 Marks)

B. A multi-site hospital wants to link its rural outpatient clinics to the central city facility to support telemedicine consulting. Detail the functions of routers and network switches in moving data packets across hospital networks. (5 Marks)