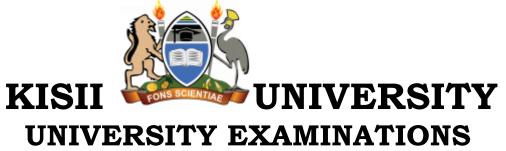# KISII UNIVERSITY
UNIVERSITY EXAMINATIONS

SPECIAL EXAMINATIONS
FIRST YEAR EXAMINATION FOR THE AWARD OF THE
DIPLOMA IN CLINICAL MEDICINE AND SURGERY
FIRST SEMESTER, 2021/2022
(JULY, 2022)

COMP 0190: INFORMATION TECHNOLOGY AND NATIONAL DEVELOPMENT

STREAM: Y1 S1   **TIME: 2 HOURS**

DAY: THURSDAY, 8:00 – 10:00 A.M.   **DATE: 21/07/2022**

INSTRUCTIONS:
1. *Do not write anything on this question paper.*
2. *Answer all questions in section one, section two, section three and attempt TWO questions in section four*

SECTION ONE (One correct Answer) 1 mark each

1. Storage capacity of magnetic disk depends on

    ☐ A) disk pack in disk surface   ☐ B) tracks per inch of surface

    ☐ C) bits per inch of tracks   ☐ D) All of the above

2. Several computers linked to a server to share programs and storage space_____

    ☐ A) Network   ☐ B) Grouping

    ☐ C) Library   ☐ D) Integrated system

3. Where is **RAM** located?

    ☐ A) Mother Board   ☐ B) Expansion Board

    ☐ C) External Drive   ☐ D) None

4. Merge cells option can be applied from?

☐ A) Format Cells dialog box Alignment Tab   ☐ B) Formatting toolbar

☐ C) Both of above   ☐ D) None of above

5. The box that contains the central electronic components of the computer is the ....

☐ A) Motherboard   ☐ B) System Unit

☐ C) Peripheral   ☐ D) RAM

6. The term _____ designates equipment that might be added to a computer system to enhance its functionality

☐ A) digital device   ☐ B) system add-on

☐ C) disk pack   ☐ D) peripheral device

7. Storage which stores or retains data after power off is called_____

☐ A) Volatile storage   ☐ B) Non-volatile storage

☐ C) Sequential storage   ☐ D) Direct storage

8. The **First Mechanical Computer** Designed by **Charles Babbage** was called?

☐ A) Super Computer   ☐ B) Abacus

☐ C) Calculator   ☐ D) Analytical Engine

9. The basic operations performed by a computer are

☐ A) Logical operation   ☐ B) Storage and relative

☐ C) Arithmetic operation   ☐ D) All the above

10. The smallest unit in a digital system is a.........

☐ A) Bit   ☐ B) Byte

☐ C) Character   ☐ D) Kilobyte

11. What characteristic of read-only memory (ROM) makes it useful?

☐ A) ROM information can be easily updated

☐ B) Data in ROM is nonvolatile, that is, it remains there even without electrical power

☐ C) ROM provides very large amounts of inexpensive data storage

☐ D) ROM chips are easily swapped between different brands of computers

12. Which of the following refers to a small, single-site network?

☐ A) LAN

☐ B) DSL

☐ C) RAM

☐ D) USB

13. An Excel Workbook is a collection of

☐ A) Charts

☐ B) Worksheets

☐ C) Both A & B

☐ D) None of the above

14. Windows 95, Windows 98, and Windows NT are known as what?

☐ A) Processor

☐ B) domain names

☐ C) modems

☐ D) operating systems

15. Hardware devices that are not part of the main computer system and are often added later to the system are _____

☐ A) clip art

☐ B) highlight

☐ C) execute

☐ D) peripherals

SECTION TWO

(T or F) One mark for each response
1. Which unit is responsible for converting the data received from the user into a computer understandable format?
   A. Memory Unit
   B. Arithmetic & Logic Unit
   C. Input Unit
   D. Output Unit

E. Control unit

2. The only language which the computer understands is _____
    A. Assembly Language
    B. Binary Language
    C. BASIC
    D. C Language
    E. Visual Basic

3. The smallest unit of data in computer is _____
    A. Byte
    B. Nibble
    C. Bit
    D. KB
    E. MB

4. Which of the following is not a function of the Input Unit?
    A. It reads instructions and data from the outside world
    B. It converts the data into computer acceptable format
    C. It makes the data into user understandable format
    D. It supplies the data and instructions to the computer for further processing
    E. Store data temporally waiting for processing

5. The process of producing useful information for the user is called _____
    A. Controlling
    B. Outputting
    C. Inputting
    D. Processing
    E. storing

6. Components that provide internal storage to the CPU are _____
    A. Registers
    B. Program Counters
    C. Controllers
    D. Internal chips
    E. Backups

7. The two basic types of memory in a computer are _____
    A. Primary and major
    B. Primary and Secondary
    C. Minor and Major
    D. Main and virtual
    E. Secondary and minor

8. Which of the following are types of ROMs?
    A. SROM & DROM
    B. PROM & EPROM
    C. Only one type there is no further classification
    D. PROM & EROM
    E. SROM and EAROM

9. Files and directories of graphical user interface of operating system programs are known as

A. commands
B. graphics
C. text
D. folders
E. Presentation

10. We write programs in?
A. Low-Level Language
B. Middle-Level Language
C. High-Level Language
D. D. Decimal-Format
E. Assembly language

11. Computer cannot boot if it does not have:
A. Compiler
B. Linker
C. Interpreter
D. Operating System
E. CPU

12. A feature that displays only the data in column (s) according to specified criteria
A. Formula
B. Sorting
C. Filtering
D. Pivot
E. Formatting

13. What is a benefit of networking?
A. Increase in the computer's speed
B. Sharing of cables to cut down on expenses and clutter
C. Sharing of resources to cut down on the amount of equipment needed
D. Increase in the speed of the network
E. Increase storage of the computer

14. Which of the following is not a disadvantage of wireless LAN?
A. Slower data transmission
B. Higher error rate
C. Interference of transmissions from different computers
D. Very expensive to setup
E. All the above

15. Which is not a topology?
A. Ring
B. Branch
C. Bus
D. Tree
E. Star

SECTION THREE
Question One

You have been asked by a local secondary school to assist them in selecting a microcomputer for their use. Name six hardware characteristics you would use to select the most suitable computer

[10 marks]

Question Two

Briefly explain the need for the following devices in computer systems [10 marks]
   i. Auxiliary memory devices
   ii. Immediate access memory
   iii. Input devices
   iv. Output devices
   v. Processing unit

Question Three

The Central Processing Unit (CPU) is considered as the heart of the computer system. The CPU basically consists of the control unit, arithmetic logic unit and main memory
   i. Describe the functions of each of the above listed component of the CPU [5 marks]
   ii. Using a diagram, illustrate the structure of a computer system [5 marks]

Question Four

   a) When saving a document for the first time, the **SAVE AS** dialogue box appears. State three items required by the dialog box before finally saving the document. [2 marks]
   b) A teacher was typing an examination using a computer and has already saved the document as *history.docx*. As she continues to modify and add more questions, she is expected to click on **SAVE** icon on the Toolbar or press **Ctrl + S** at intervals. Why is this necessary?
       [2 marks]
   c) The teacher finished typing the exams and saved as *history.docx* in a location she cannot remember. How do you assist her to get the document from her Microsoft Windows XP computer? [2 marks]
   d) State and explain the key documents in a mail merge operation [4 marks]

Question Five

   a) Write the full names of the following acronyms as applied in computers [5 marks]
       a. VDU
       b. CU
       c. ALU
       d. DRAM
       e. UPS
       f. EAROM
   b) Explain what happens if the following keys are pressed simultaneously [5 marks]
       a. ALT+F4
       b. SHIFT+CTRL+<
       c. CTRL+V
       d. CTRL+S
       e. F7

Question Six

   a) Explain the following computer operations [4 marks]
       a. Cut and paste
       b. Copy and paste

b) Distinguish the following Computer terms; [6 marks]
   a. Hardware and Software
   b. Application Systems and Operating System
   c. Data and Information

SECTION FOUR:

Answer any TWO questions in this section 20 marks each

Question One
a. You are a manager of Portma Lee Ltd. You are working on some graphs and diagrams for a report being prepared by your department. You are using a proprietary graphics package and because some of the diagrams are quite complex, you are backing up you work as you go along.
   i. What is backing up and why is it necessary to keep on backing up your work?
   [5 marks]
   ii. Which backing up device would you recommend for this application? Justify your answer [7 marks]
b. Convert the values shown below:
   i. 567521 octal to hexadecimal [4 marks]
   ii. 11011110101010100 binary to octal [4marks]

Question Two
You are the systems manager in your organization. The financial controller has asked you to provide a report that covers the following points:
   i. Definition of a spreadsheet [2 marks]
   ii. Distinction between a manual spreadsheet and electronic spreadsheet
   [10 marks]
a. Distinguish between Cut and Copy features as used in word processing [2 marks]
b. Why it is necessary to proof read a document before printing? [4 marks]
c. Explain four advantages of using word processing as an application software
   [4 marks]

Question Three
a. Explain the functions of the following keys on the keyboard [8 marks]
   i. CAPSLOCK
   ii. ENTER

     iii.   BACKSPACE
     iv.   DELETE

b. Briefly describe the two types of primary storage   [6marks]
     i.   RAM
     ii.   ROM

c. Random Access Memory is referred as a volatile memory. Explain   [2 marks]

d. Differentiate between hardcopy output and softcopy output giving an examples in each case
                                                    [2 marks]