INTRODUCTION TO COMPUTER

Information processing cycle

SOLUTION TO THEORY QUESTIONS

1. Stages involved in information processing cycle.

- Input stage
- Processing stage
- Output stage
- Storage stage
- Distribution stage

2. Basic operations of the computer

- Input
- Process
- Output
- Storage

3. **Data** are raw facts and figures or numbers, letters and symbols that do not have meaning.

4. Sources of data

- Interviews
- Questionnaires
- Surveys
- Personal records

5. Forms of data

- Text
- Audio
- Video
- Numbers
- Pictures

6. Information is a processed data that is meaningful to the user

7. Uses of information

- Decision making
- Planning
- Records keeping
- Measuring an organizational level of success
- Controlling resources of an organization

8. Qualities of good information

- Flexible
- Simple
- Relevant
- Accessible
- Timely delivered
- Secure
- Complete

9. Sources of information

- Internet
- Library

- Journals
- TV
- Radio
- Newsletter

10. Difference between data and information

DATA	INFORMATION
Data is raw	Information is processed
Data is not meaningful	Information is meaningful
Data cannot be used as information	Information can be used as data
Data is unorganized	Information is organized

11. Information processing cycle is the sequence of stages that data passes through before it comes as information

12. **In each stage of information processing cycle, this is what happens:**

Input

Data is input in this stage using input devices. These devices convert data into a digital format to be sent to the processing stage

Processing stage

In this stage, processing of data is initiated using processing devices like the CPU and the memory

Output stage

At this stage, processed data (information) is communicated to the computer user through output devices like monitor, etc

Storage stage

In this stage, produced information is now ready to be stored either permanently or temporary using storage devices like the pen drive, etc

Distribution stage

in this stage, information gets ready to be distributed using numerous distribution devices or tools like mobile phones, fax machine, telephone, television, radio, satellite, etc.

13. Hardware devices used in each stage of IPC

Input stage

- **i.** Mouse
- **ii.** Keyboard
- **iii.** Microphone
- **iv.** Barcode reader
- **v.** Joystick
- **vi.** Touchscreen
- **vii.** Remote controller
- **viii.** Light pen

Processing stage

i. CPU (Pentium, Celeron, AMD, MC68040, Intel, Duron, etc.)

Output stage

i. Monitor

ii. Projector

iii. Speaker

iv. Plotter

Storage stage

i. Pen drive

ii. DVD/ CD ROM drive

iii. Memory card reader

iv. Floppy disk

v. Hard disk drive

Distribution stage

i. Mobile phone

ii. Radio

iii. Fax machine

iv. Television

v. Telephone

14. How the computer transform data into information

The computer transforms data into information by using (IPOS) model. A computer receives data signals from input devices and then transfers the data signals through data bus to the Central Processing Unit (Processor). The processor together with the memory converts data into information. The information is now carried by the output devices to the computer user for verification. The information now gets ready to be stored by the computer using storage devices.

Input **process** **output** **store**

10. Information processing cycle

Purpose if IPC

The purpose of information processing cycle is to convert data into information and get it readily available for communication.

12. THE CORRECT PROCESING STAGE

i. Input

ii. Processing

iii. Output

iv. Storage

1. Give the steps involved in information processing cycle
2. What are the four basic operations performed by the computer system?
3. Write down the stages involved in the information processing cycle.
4. Define the term data as used in ICT
5. Mention four sources from which data can be obtained for computer to process
6. Mention four forms of data that can be processed by the computer

7. State four ways in which information received can be applied in our daily activities

8. Mention four qualities of good information

9. Mention three sources through which information used can be obtained from.

10. State three differences between information and data

11. What is information processing cycle?

12. Explain briefly what happens in each stage of information processing cycle.

13. Mention two hardware devices that can be used at each of the stages of the information processing cycle

14. Explain briefly how computer manipulate data into information.

15. The diagram illustration below shows how information is manipulated in a computer system. Use it to answer the questions tha

t follow

i. What name is given to the cycle process above?

ii. What is the main purpose of this cycle?

iii. Write down the correct processing stage names denoted by 1,2,3,4

iv. State the device type used at each stage of the information processing cycle

v. Give two examples of the device type mentioned above

PARTS OF A COMPUTER

SOLUTIONS

1. Computer system
2. Labeled parts of the diagram
    A. System unit
    B. Monitor

C. Speaker

D. Microphone

E. Mouse

F. Keyboard

3. Uninterruptible power supply

It is used to supply constant flow of power to the computer system when there is power cut

4. Acronyms;

i. ALU – Arithmetic Logic Unit

ii. CPU – Central Processing Unit

5. What is a motherboard?

The motherboard is the major circuit board of the computer system, where all other components are connected in the system unit

6. **Components of the CPU**

i. Arithmetic Logic Unit

ii. Control Unit

iii. Registers

iv. Memory Unit

7. **Acronyms**

I. HDD - Hard Disk Drive

II. VDU - Video Display Unit

III. BIOS - Basic Input Output System

GROUP 1	GROUP 2
Speedometer	Vehicle
Electric stove	Home
Money counting machine	Bank
x-ray machine	Hospital

8. Main hardware components of the computer

   i. Mouse

   ii. Keyboard

   iii. System unit

   iv. Monitor

9. Completed table for the component on the computer system unit

BACK VIEW	FRONT VIEW	INSIDE VIEW
VGA port	CD/DVD slot	CPU
Power supply unit	Floppy Disk Slot	Memory
PS/2 Port	Power button	Motherboard

10. Hardware is the physical components that make up the computer system.

11. Uninterruptible Power Supply provides power to the computer system when the input power source or main power fails.

12. Uses of computers in Education

   - It is used to enhance teaching and learning
   - It is used to search for information online

- It is used to help accomplish assignments
- It is used to bring lessons to reality
- It is used to keep students' records in the school

13. Uses of computers in everyday life include

- It is used for playing games
- It is used for entertainment
- It is used for buying and selling online
- It is used for banking
- It is used for controlling car alarms

14. What is computer?

A computer is an electronic device that accepts data, process and store the result for future reference

15. Types of computer;

- Analog computer
- Digital computer
- Hybrid computer

16. Explanation to types of computer and two examples each

- Analog computers are types of computer that represent data or information in a continuous state. They usually measure variables along a continuous scale. They are used to measure some physical quantity like pressure, temperature. Eg. Thermometer, speedometer, wrist watch, volt meter etc.

- Digital computer is a type of computer that typically represent data or information in terms of digits (numbers) and in discrete a state. Eg. Mobile phone, Minicomputer

- Hybrid computers is a type of computers that combines both the features of analog and digital computers. Eg. Automated Teller Machine, Money Counting Machine

17. Groupings of the kinds of computers in order of capacity and size

- **Super computers**
- **Mainframe computers**
- **Mini computers**
- **Microcomputers**

18. The major key components of the computer

- **Hardware**
- **Software**

19. Main hardware components of the computer.

a. **Monitor**

b. **System unit**

c. **Keyboard**

d. **Mouse**

20. Functions of the main hardware components of the computer.

i. System Unit: **is a case that contains the electronic components of the computer that are used in data processing.**

ii. Keyboard: **contains keys that are pressed to enter data into the computer**

iii. Mouse: **is a small hand-held device that is used to control the movement of a small arrow on the screen of the monitor called the mouse pointer**

iv. Monitor: **displays text and graphics processed by the CPU**

21. Software is a set of instructions that tells the computer how to perform a task

22. Types of software and their explanation

ü **System software: consists of the programs that controls and maintains the operations of the computer and its devices**

ü **Application software consists of programs designed to make users do specific type of work using the computer.**

23. Types of system unit

- **Tower system unit**
- **Desktop system unit**

24. Port is a connecting slot found around the system unit and allows connections of extensions of external devices to the system unit.

Most connectors area either male (containing one or more exposed pins) or female (containing holes in which the male connector can be inserted)

25. Examples of connectors

- **Power connector**
- **DVI connector**
- **USB connector**
- **Printer connector**
- **VGA connector**
- **SATA connector**
- **IDE connector**
- **HDMI connector**

26. Functions of the CPU

v **It interprets or manipulate the various instruction fed into the computer system**

v **It carries out commands to make the hardware components function.**

27. Examples of central processing unit

- Celeron
- Pentium I –IV
- Core i3, i5 i7
- Dual core, Quad core, Octal core

28. Types of motherboard

- Advanced Technology Extended (ATX)
- Advanced Technology (AT)
- Extended Technology (XT)

29. Components of the motherboard

- Processor slot
- BIOS
- Expansion slot
- IDE slot
- ROM chip
- Memory slot
- Power slot

30. Peripheral devices area external devices connected to the system unit to perform an additional or extended function.

31. Examples of peripheral devices

- Monitor
- Keyboard
- Mouse
- Scanner

- Speaker
- Printer

32. Reasons why computers are necessary to be used

- Data processing speed
- Ability to work continuously
- Accuracy in results displayed
- Flexibility of using it for work
- Ability to store large amount of information for future use.
- It saves time
- Avoidance of mistakes or errors

33. Features of Personal Computer (PC)

- It is an electronic device
- It accepts data as input
- It is capable of processing data based on instructions given
- It can store data and information
- It output meaningful information

34. The three classification of computers

- Capacity and size
- Type
- Purpose

35. Embedded computers are special purpose computers that is used inside a device and it usually dedicated to specific function

36. A notebook computer is also called a laptop. It is a portable personal computer often designed to fit on your lap. Notebook computers are thin and lightweight, yet they can be as powerful as average desktop computer

37. Tablet PC is a special type of notebook computer that allows you to write or draw on the screen using a digital pen. With a digital pen, users write or draw by pressing the pen on the screen, and issue instructions to the tablet PC by tapping on the screen

38. Handheld computer is a computer small enough to fit in one hand. Many handheld computers communicate wirelessly with other devices or computers and also include a digital pen or stylus for input

1. Use the diagram below to answer questions (a) and (b)

a. Identify the diagram above

b. Name the parts labeled **A,B,C,D,E,F** of the diagram

2. (a) state the function of an uninterruptible power supply.

(b) write the following acronyms in full.

i. ALU

ii. CPU

3. What is a motherboard?

4. List two components of the central processing unit.

5. Write down the acronyms below in full;

i. HDD

ii. VDU

iii. BIOS

6. Match the items in Group 1 to those in group 2 with lines

Group 1	**Group 2**
Speedometer	Bank
Electric	School
Money counting machine	Hospital
X-ray machine	Vehicle
	Home

7. List the four hardware components of the computer.

8. List two component if the central processing unit

9. Using the table below, indicate where the following components can be seen on the computer system unit

CD/DVD slot, CPU, Floppy disk slot, Memory, Memory, Motherboard, Power button, Power Supply Unit, PS/2 port, VGA port

BACK VIEW	FRONT VIEW	INSIDE VIEW

10. Explain computer term Hardware

11. (a) State the function of an uninterruptible power supply

12. State 3 uses of computers in each of the following areas

    a. Education

    b. Everyday life

13. How do you define computer.

14. State the three types of computers that are mostly used worldwide.

15. Briefly differentiate among three types of computers and state two examples for each

16. Group the following kinds of computers in order of capacity and size;

(microcomputers, Minicomputers, Super computers and Mainframe computers)

17. Computer needs two major key components to function. Name them;

18. How do you define the term Hardware of a computer;

19. Mention the four main hardware components of a computer.

20. Give the functions of the main hardware components of a components

21. Explain the term software

22. State the major types of software used by the computer and explain them

23. Study the diagram below and answer the questions that follow

a. Identify the parts labeled A and B

b. State any five components that can be found in front of the system unit

c. List any five devices that are found inside the system unit.

d. List five devices that are found at the back of the system unit

24. What is a port?

25. Mention any four examples ports that are found around the system unit.

26. What is a connector?

27. Give any four examples of connectors, commonly used around the system unit.

28. Study the diagram below carefully and answer the questions that follow it.

29. Mention three examples of central processing unit

30. State two types Motherboard

31. Mention one function in the motherboard

32. State any four components that can be found on the computer motherboard

33. What is a peripheral device?

34. State any three examples of peripheral devices that are commonly used with the computer

35. State three reasons why computers are very necessary to be used

36. Describe briefly the main features of a personal computer (PC)

37. Explain the following types of computers

a. Embedded computer

b. Notebook computer

c. Tablet PC

d. Handle computer

38. State the three main classifications of computers

SECTION A

1. The sharpness of an image on a monitor screen is determined by the number of…

a. Inches

b. Pits

c. Pixels

d. Units

2. The component of the computer that house the motherboard and the power supply unit is called…

a. Central processing unit

b. Monitor

c. Printer

d. System unit

3. The part of the central processing unit responsible for performing all logical operation is…

    a. ALU

    b. CU

    c. RAM

    d. ROM

4. The brain of the computer is the…

    a. Monitor

    b. System

    c. Read only memory

    d. Central processing unit

5. The following devices can be found in the system unit except…

    a. Port

    b. Memory

    c. Motherboard

    d. Scroll wheel

6. The following are hardware components except…

    a. Keyboard

    b. Monitor

    c. Mouse

    d. Windows

7. The memory that stores permanent instructions is referred to as…

    a. Random access memory

    b. Read only memory

c. Write once read many memory

d. Virtual memory

8. Devices that extend their services to enhance the function of the computer are called…

a. Hardware

b. Software

c. Peripherals

d. Firmware

9. The physical material on which a computer keeps data, instructions, and information is called…

a. Primary storage

b. Secondary storage

c. Storage devices

d. Storage media

10. The instruction between the input and the output devices is controlled by the…

a. BIOS

b. LINUX

c. CPU

d. RAM

11. Desktop computers are examples of …

a. Upper computers

b. Mainframe computers

c. Minicomputers

d. Microcomputers

12. The following are components in the system unit except…

a. CPU

b. RAM

c. ROM

d. VDU

13. Which of the following devices is used to process information?

a. Computer

b. Thermometer

c. Speedometer

d. Weighing scale

14. The tangible part of the computer is known as…

a. Hardware

b. Liveware

c. Malware

d. Software

15. An electronic and programmable device that processed data into useful information is called…

a. Computer

b. Peripheral

c. Processor

d. Technology

16. The physical component of the computer that can be seen and touched is called…

a. Hardcopy

b. Hardware

c. Softcopy

d. Software

17. Which of the following is a component of the computer's Central processing unit?

a. Hard disk and BIOS

b. Control unit and ALU

c. PSU and UPS

d. ROM

18. Which one of the following loses its content when the computer is switched off?

a. ROM

b. RAM

c. Hard disk

d. Floppy disk

19. CPU speed is measured in …

a. Bytes

b. Miles

c. Kilometers

d. Hertz

20. Additional hardware devices that can be plugged into the computer's system unit to perform additional functions are known as…

a. Expansion cards

b. Peripherals

c. USB ports

d. USB cables

21. Which of the following is an input device?

a. Scanner

b. Speaker

c. Plotter

d. Printer

22. A type of computer that has features of both analog and digital computer is known as…

a. Mainframe computer

b. Super computer

c. Analog and digital computer

d. Hybrid computer

23. A major advantage of a laptop over a desktop computer is that..

a. Laptop usually contain more memory

b. Laptop usually have larger monitor

c. Laptop do not require a keyboard

d. Laptop can run on battery power

24. What is the name given to main circuit board in the computer system unit that holds the processing components?

a. Motherboard

b. Expansion board

c. Sound card

d. Memory card

25. The type of computer that data obtained by measurement is called…

a. Digital computer

b. Analog computer

c. Hybrid computer

d. Super computer

26. ….. supplies electronic signals to all other components of the computer system.

a. Motherboard

b. Hardware

c. Power supply unit

d. Program

27. The unit that converts alternating current (AC) to direct current (DC) is called…

a. Motherboard

b. Power supply

c. Main memory

d. Hardware

28. The card that enables a computer to output digital audio is known as…

a. Amplifier card

b. Recorder card

c. Sound card

d. Video card

29. A ….card is used to output images to the monitor…

a. Network card

b. Digital card

c. Audio card

d. Video card

30. A computer that can fit into the palm of your hand is called…

a. Smart phone

b. Tablet PC

c. Palmtop computer

d. iPad

31. A complex scientific research is usually done using…

a. Minicomputers

b. Supercomputers

c. Microcomputers

d. Mainframe computers

Computer software

1. **Software is a set of instructions that tells the computer what to do**
2. **Types of computer software**
   - **System software**
   - **Application software**
3. **Examples of Application software**
   - **Word processing software**
   - **Presentation software**
   - **Database software**
   - **Educational software**

- Spreadsheet software
- Multimedia software
- Desktop publishing software

4. **Examples of web browser**

- Google chrome
- Opera
- Maxilla Firefox
- Internet Explorer
- Netscape Navigator

5. **System software** is a type of software that controls the entire operations of the computer and its peripheral. Eg. Windows, DOS, Unix etc

6. **Types of system software**

- Operation system
- Utility program
- Language translate
- Device drivers

7. **Application** software is the type of software that is designed to solve specific task or problem, e.g. Word processing, spreadsheet, education software.

8. **Examples of an operation system**

- Windows (XP, ME, 2000, Vista, Windows 7, Windows 8, Windows 10)
- Disk operation system
- Mac OS
- Solaris

- Unix
- Solaris
- Android
- iOS
- Novell NetWare
- Blackberry

9. Typing software is an application software that that is designed to teach computer users how to type professionally using the keyboard

10. Examples of Typing software

- Mavis Beacon Teaches Typing
- Mario Teaches Typing
- Typing Master
- Rapid Typing
- Tux Typing

11. Operation system: is a set of programs containing set of instructions that work together to coordinate all the activities among computer hardware

12. Functions of the operation system

- Control the input and output devices
- It controls data transfer to storage devices
- It provides user interface
- It loads and run application

13. Utility program are system programs that provide useful services, such as performing system checks and maintenance.

14. Examples of Utility Program

- File defragmentation programs

- **Disk repair programs**
- **Virus protection programs**
- **Languages translator program**

15. Importance of Application software

- **To make business activities more efficient**
- **To assist with graphics and multimedia projects**
- **To support home, personal and educational tasks**
- **To facilitate communication**

16. Education software

- **Mavis Beacon Typing Software**
- **Computer-Based Training**
- **Microsoft Encarta software**
- **Britannica software**

17. Examples of application software

APPLICATION SOFTWARE	EXAMPLE
Word processing software	Microsoft word Word Pad Word Start
Presentation Software	Microsoft PowerPoint Software Mariner Advent Net Zoho Sheet
Desktop Publishing	Microsoft Publisher Corel Draw Serif Page Plus

18. Anti-virus: software is a program designed to protect a computer against viruses by blocking, identifying and removing any viruses found in memory, on storage media, or on incoming files.

19. Examples of Anti-virus software

- **McAfee Anti-virus software**
- **Avast Anti-virus software**
- **AVG Anti-virus software**

20. Importance of Education Software

- **it reduces tension in learning**
- **it facilitate teaching and learning**
- **students can learn at their own pace**

TURNING ON/OFF THE COMPUTER

1. Steps in the correct order to switch on the computer

- Check if all cables are connected to the system unit correctly
- Check if the power cables of the system unit and the monitor is connected to the main source of electricity
- Remove all removable storage devices (if any) from the system unit
- Press the power button of the main source of electricity
- Press the power button of the system unit
- Press the power button of the monitor

2. Step in the correct order to turn off the computer

- Close all running application programs
- Click on the start button on the Taskbar to display the start menu
- Click on Turn Off button on the Start menu to display the Turn Off dialog box and click on Turn Off to shut down the computer

3. Cold booting is the process of starting the computer by pressing the power button on the system unit.

4. Warm booting is the process of restarting the computer by using the operating system.

5. Difference between cold booting and warm booting

Cold booting	**Warm booting**
The power button on the system unit is used	The start button on the desktop taskbar is used
The operation happens when the computer system is off	The operation happens when the computer system is already on
Starts the computer by the user	Starts the computer with the help of the operating system

6. Steps to launch the paint application

- Click on the start button
- Move the cursor to all programs and click to display the all programs menu
- Click on accessories

- Click on Paint from the list to launch it

7. Closing an open application

   - Locate the window control button at the top right corner of the application title bar
   - Click on close button to exit the application

8. Effects of wrongfully shutting down the computer

   - It could lead to corruption of files or some programs
   - It can affect hardware components such as the power supply unit and hard disk

9. Instances that might call for warm booting of the computer

   - When some running programs are not responding to commands by the user (freeze)
   - When the operating system is running slower than its normal speed of processing data.
   - After installing new programs which recommends warm booting

Storage devices

1. Storage devices: are the devices that records (writes) and also retrieves (reads) stored data, instructions, and information from storage medium

2. The two main types of storage devices

   - Primary storage (main memory)
   - Secondary storage

3. Primary storage is the main area of the computer where data is stored for quick access by the CPU.

It stores holds data for a short time when the computer is running.

4. Examples of primary storage

   v RAM

   v Cache

5. Secondary storage is the medium that stores information permanently until it is deleted or overwritten.

6. Advantages of using secondary storage

   ü It can hold data when there is power or not

   ü It can be used to transfer data from one place to another

   ü It can hold data for a long period of time

7. Examples of storage devices

   - Hard disk drive
   - CD ROM drive
   - DVD ROM drive
   - Pen drive
   - Floppy disk drive

8. Acronyms

CD	Compact disc
CD-R	Compact disc- recordable
CD-RW	Compact disc -rewritable
DVD-RW	Digital versatile disk –rewritable
DVD-ROM	Digital versatile disk-read-only-memory
DVD-R	Digital versatile disk-recordable
BD	Blue ray disc
BD-ROM	Blue ray disc-read-only-memory
RAM	Random Access Memory
SD card	Secure Digital card
GB	Gigabyte
MB	Megabyte
SSD	Solid state drive

9. Importance of storage devices (SBTS)

- For keeping information for future use
- For backing up information
- For sharing and transferring information from one computer to another.

10. Storage medium is the physical medium on which a computer keeps data, instructions and information.

11. Storage media and their storage devices

STORAGE MEDIA	STORAGE DEVICE
Hard disk	Hard disk drive
Floppy disk	Floppy disk drive
CD-ROM	CD-ROM Drive
DVD-ROM	DVD-ROM Drive
Pen drive	Pen drive

12. Types of storage media
    - Magnetic media
    - Optical media
13. Features of storage media
    - Some of them have tracks
    - They have sectors
    - They have data area
    - They have silver coated surface
    - They are non-volatile / store data permanently
    - Capacity is reckoned in terms of byte / megabytes / terabytes
    - It has addressable units
14. Examples of storage media
    - Pen drive
    - Memory card
    - CD-ROM
    - DVD –ROM

- Floppy disk
- Hard disk

15. Ways to protect storage media

- Keep storage media in a protective jacket
- Keep storage media away from magnetic field
- Write-protect storage media
- Keep storage media away from moisture
- Keep storage media away from dirt
- Keep storage media away from hot environment

16. Writing: is the process of keeping a copy of your information on a storage medium for future reference

17. Reading is the process of retrieving information from a storage medium with the help of a storage drive.

18. Data backup is the process of keeping a copy of your information on a storage medium for future reference.

19. Storage capacity is the number of bytes (characters) a storage medium can hold

20. Transfer time is the amount of time it takes a storage device to locate an item on a storage medium

21. Difference between RAM and ROM

RAM	ROM
Stores data temporarily	Stores data permanently
Is faster	Is slower
Stores information about application	Stores data about the operation system programs

Lose data when power is off	Keeps data when power is off
Is volatile	Is non-volatile

22. Why information should be stored

- For easy accessibility
- For future reference

23. Why RAM is considered as a volatile memory

Random access memory is volatile because its content (data) is lost when the computer goes off.

24. Formatting is the process of preparing a disk for use or creating a space on it for re-use.

25. Difference between hard disk and pen drive

Hard disk	Pen drive
Has larger storage size	Has lower storage size compared hard disk
Is the primary storage of the computer	Is external storage medium
Is very strong and durable	Is less strong and light in weight
Uses spinning splatters	Is a flash memory
It forms part of the system unit	It is a peripheral

QUESTIONS

1. State the function of a floppy disk

2. List four storage media

3. Formatting a disk refers to…

4. Arrange the storage devices (compact disc, hard disk and pen drive) in descending order of

    i. Access speed

    ii. Storage capacity

5. State two differences between

    i. Random Access Memory and Read Only Memory

    ii. Hard disk and pen drive

6. Outline two difference between storage media and storage device

7. State the two types of storage media

8. State two ways to protect storage media

9. What the term storage media mean in ICT?

10. Explain the term storage media

11. State three importance of storage media

12. Explain what is meant by storage device

13. Give two examples of storage device

14. Give two differences between RAM and ROM

15. Briefly explain why RAM and ROM are termed as primary storage devices

16. Why is the Random Access memory said to be volatile?

17. Mention the two major classification of storage devices and briefly explain them

18. Mention three advantages of using secondary storage devices

19. State the two major differences between Compact disc and Digital versatile disc

20. State the devices that are used to read or write

i. CD

ii. DVD

21. State four guidelines for proper handling of CDs and DVDs

22. State three characteristics of hard disk

23. State one advantage external hard disk has over internal hard disk

24. What happens when a disk is formatted?

25. The table below shows list of storage media. Provide their respective storage devices

STORAGE MEDIA	STORAGE DEVICE
Hard disk	
Floppy disk	
CD-ROM	
DVD-ROM	
Pen drive	

26. Explain the following

i. Storage medium

ii. Storage capacity

iii. Access time

iv. Transfer rate

27. What is flash memory?-

28. Name four types of flash memory

29. Arrange the following storage devices, (memory, memory card and USB flash drives, optical disc, hard disks and tapes in descending of transfer rate.

30. What do the following acronyms stands for?

i. CD-ROM

ii. CD-R

iii. CD-RW

iv. DVD-RW

v. DVD-ROM

vi. DVD-R

vii. BD-ROM

viii. ROM

ix. RAM

x. GB

xi. MB

xii. SSD

INPUT DEVICES

1.Input is any data and instruction entered into the computer for processing

2.Input devices are devices that are used to enter data into the computer

3.Examples of input devices

- Keyboard
- Mouse
- Game pad
- Scanner

- Microphone
- joystick
- Web cam
- Light pen
- Optical Character Recognition (OCR
- Stylus
- Pointing stick
- Touch pad
- Barcode reader
- Magnetic Character Ink Character Recognition (MICR)

4. Pointing device is an input device that allows a user to control the movement of the cursor

5. Devices that are both input and output

- Modem
- Fax machine
- Headset
- Touch screen
- Network Interface Card
- Digital camera
- Camcorder

6. Function of input devices

They are used to send data into the computer for processing.

QUESTIONS

1. What is input device?
2. Classify the following into either input or output device in the table below

(microphone, joystick, web cam, plotter, scanner, mouse)

INPUT DEVICE	OUTPUT DEVICE

3. State the function of a scanner.
4. List three examples of
    i. Input devices
    ii. Devices which serve both input and output purposes
    iii. State two functions of an input device
    iv. What is an input?
    v. Explain the following terms used in ICT
        a. Alphanumeric keys
        b. Numeric keypad
5. State one primary function of the computer keyboard

6. What is the function of the computer mouse?
7. What is the function of the mouse pointer?
8. What is pointing device?
9. State three examples of pointing devices
10. What is meant by the term voice input?
11. State three examples of device used to input voice data.
12. Explain the following terms used in ICT
    a. Video input
    b. Webcam
13. What is a scanner?
14. List four types of scanners used in ICT
15. What is meant by the term Optical Reader?
16. State two examples of the Optical Readers
17. What is a barcode?
18. What is a biometric input?
19. Name any three biometric devices you know

COPYRIGHT ETHICS

1. Copyright: is the exclusive legal right that prohibits the copying of another person's intellectual property without permission.

2. Reasons for copyright protection:

- Ø **To ensure that people's work is fully protected**
- Ø **To encourage creativity among people**

- Ø To maintain originality of the product
- Ø To ensure that people are rewarded for their work

3. **Work that can be protected by copyright**

- Ø Literary work
- Ø Computer software / program
- Ø Musical work
- Ø Artistic work
- Ø Audio – visual work
- Ø Graphic images / photography

4. **Copyright infringement**

Copyright infringement is the act of breaking copyright rules and regulations

5. **Actions that amount to copyright infringement**

- Ø Creating copies of an item and selling it.
- Ø Renting the original document or software
- Ø Removing or altering copyright information of the rightful owner of the work
- Ø Performing or displaying a copy of a copyrighted work public

6. **Punishment given to offenders of copyright infringement**

- Ø Confiscation of copyrighted items
- Ø Imprisonment
- Ø Fines
- Ø Sanctions

7. **Conditions that satisfy work before it attains full copyright protection.**

- Ø It must original

Ø **It has to be fixed in a definite medium of expression**

Ø **It should be created by a person who ordinarily stays in the country**

8. **Intellectual property: refers to creations using the mind such as inventions, literary and artistic work.**

9. COPYRIGHT LAWS IN GHANA

Copyright laws in Ghana is the act No 690 which was enacted on May 17, 2006. This act replaced the parliament's Act No. 110 enacted in 1985. Under this Act, work that are protected under the copyright law are:

- **Art**
- **Sound recording**
- **Literature**
- **Musical works**
- **Choreography**
- **Audio-visual works**
- **Computer programs and software**
- **Derivative works**

The law grants the copyright holder several moral rights. These moral rights do not expire. The copyright holder retains these moral rights until death. At death the moral right is passed on to the successors. The law permits that the author must be credited whenever his work is referenced. The musicians association of Ghana (MUSIGA) is a group of musicians that protects the artistic work

10. **Software piracy: is the authorized and illegal duplication of copyrighted software**

11. Fair Use: is when a person is allowed to copy part of a work for personal use, studies, short quotation and educational purposes

12. Computer hacker: is someone who seeks and exploits weakness in a computer system or computer network.

13. Responsible use of the computer

- **Do not use a computer to harm other people**
- **Do not interfere with other people's computer work**
- **Do not look into other people's lives or files with our computer**
- **Do not use or copy software for which you have no right**
- **Do not use a computer to steal or for fraud**
- **Do not use other people's computer resource without authorization**

14. Rules and regulations to be observed in the computer laboratory.

- **Do not enter the computer lab without permission**
- **No food or drink should be brought into the computer laboratory**
- **Students should not insert any removable storage devices into the computer without permission.**

15. Computer ethics: refers to the rules and standards governing the conduct and dealings of the individuals who uses the computers and how they interact with computer users on a network.

EMAIL AND SHARING OF INFORMATION OBJECTIVES

1. **A video conference is a meeting between two or more geographically separated people who use a network or the internet to transmit audio and video data.**

OR

Video conferencing is the use of video and sound technology and computer to enable people in different locations talk to and see each other.

2. **Devices associated with video conferencing.**
   - **Web cam**
   - **Microphone**
   - **Headset**
   - **Speaker**
3. **Media for sending and receiving information**
   - **Satellite**
   - **Smart phone**
   - **Fax machine**
   - **E-mail**
   - **WhatsApp**
   - **Yahoo**
   - **Viber**
   - **Computers**
4.

WORD PROCESSING

INTRODUCTION TO WORD PROCESSING

1. The total number of command buttons on the title bar of an opened word processing window is …

    a. 2

    b. 3

    c. 5

    d. 6

2. A program on the computer which enables users to type letters to friends is the…

    a. Browser

    b. Spreadsheet

    c. Utility

    d. Word processing

3. The standard toolbar contains buttons that…

    a. Closes and resizes windows

    b. Control page margins and tabs

    c. Help users to navigate through the documents

d. Perform the most common tasks

4. Which of the following documents views will enable a user to view a document as it will appear on a printed page?

a. Normal view

b. Outline view

c. Print layout view

d. Web layout view

5. The print preview button is located on which of the following toolbars?

a. Drawing toolbar

b. Formatting toolbar

c. Header/Footer toolbar

d. Standard toolbar

6. The method of reproducing copies of a document is termed as…

a. Copying

b. Pasting

c. Photocopying

d. Printing

7. The following are features of a word processing application window except…

a. Desktop

b. Font

c. Print

d. Zoom

8. Previewing a document before printing is necessary because it..

a. Formats the document

b. Displays the name of the document

c. Displays the copy and paste of documents

d. Displays how the document will look after printing

9. The process of moving different portions of a document on the screen to view is called..

a. Download

b. Upward

c. Moving

d. Scrolling

10. A word document created with a word processing program will have the extension…

a. .doc

b. .txt

c. .ppt

d. .xls

11. Making changes to an existing document is referred to as…

a. Creating

b. Modifying

c. Adjusting

d. Editing

12. A symbol on the screen that indicates where the next character typed will appear is…

a. Text mark

b. Indicator

c. Pointing stick

d. Insertion

13. The standard toolbar contains buttons that…

a. Control page margins and tabs

b. Perform the most common tasks

c. Help users navigate through the document

d. Close and Resize windows

14. In using MS word, one can decide to see exactly how the pages of the current document will appear when printed. Which of the following best describes this?

a. Printer print

b. Print preview

c. Print view

d. Print

15. Which of the following is not a language tool in a word processing application?

a. Find and Replace

b. Grammar checker

c. Thesaurus

d. Spell Checker

16. Computerized text Editing can appropriately be applied to…

a. Database application

b. Desktop application

c. Spreadsheet application

d. Word processing

17. A word processor is used to…

a. Browse on the internet

b. Change wallpaper

c. Search for audio files

d. Type letters

18. The print preview button is located on which of the following toolbar?

a. Drawing

b. Formatting

c. Header and Footer

d. Standard

19. Which of the following bar is **not** a feature of word processing program?

a. Formula bar

b. Menu bar

c. Status bar

d. Standard toolbar

20. In MS Word, ruler is used to…

a. Draw lines

b. Menu bar

c. Status bar

d. Standard toolbar

21. Which of the following application is an example of Word processor?

a. Excel

b. Lotus 1-2-3

c. Notepad

d. Print artist

22. The shortcut to some commands on the menu bar of a Word processing application program can be found on the…

a. Scroll bar

b. Status bar

c. Standard toolbar

d. Title bar

23. Word processing applications can be used to produce the following except…

a. Program

b. Memos

c. CVs

d. Letters

24. Which of the following is not an advantage of word processing application?

a. It can save text for future use

b. Can process text

c. Can format text

d. Can format drive

25. Microsoft word 2003 is an example of

a. Application software

b. Word processing software

c. Presentation software

d. Database software

26. Which of the following is not an example of word processing application?

a. Text editor

b. Writer

c. Text word star word

d. Star word

27. Arrange the following steps in how to launch Microsoft word from the start menu.

i. Point to All programs

ii. Choose Microsoft Office

iii. Click the start button to open the start menu

iv. Click Microsoft Word 2003 from the submenu

a. I, II, III and IV

b. III, I, II, and IV

c. III, I, IV and II

d. III, II, I, and IV

28. Microsoft Word 2003 and Word Perfect are software package that are used to___

a. Edit and process text

b. Manage data

c. Manage numerical values

d. Edit

29. All the following are characteristics of word processors except…

a. Type and edit text

b. Format text

c. Display a slide show view

d. Copy and paste text

30. ……displays the name of the current document.

a. Menu bar

b. Title bar

c. Taskbar

d. Status bar

31. All the following are features of Microsoft word 2003 except…

a. Office button

b. Status bar

c. Drawing toolbar

d. Standard toolbar

32. Which of the following enable you to create a new document in Microsoft Word 2003?

a. Open

b. New blank

c. New

d. Start

1. Which option keeps tracks of spelling mistakes in a document?

a. Spelling option

b. Contextual spell checker

c. Editing options

d. Standard toolbar

2. Which option keeps tracks of words on currently active document?

a. Counter

b. Summation

c. Live word count

d. Word counter

3. Which option displays the number of pages of your currently active document?

a. Status bar

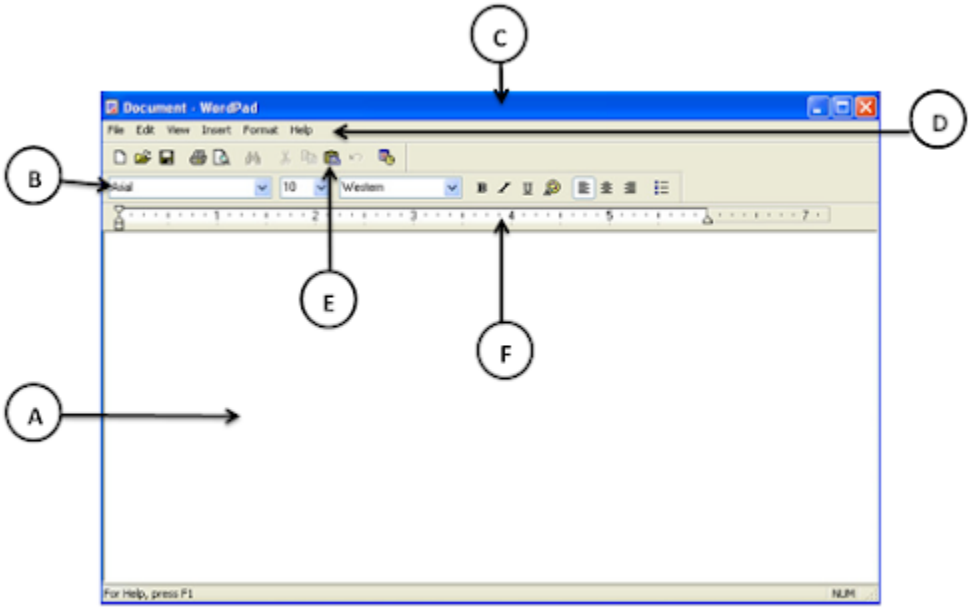
b. Page number

c. Status information

d. Word count

THEORY QUESTIONS

1. Study the diagram below carefully and answer the questions that follow



I. What is the name of the application program above?

II. Give the file name of the application above

III. Name the parts labeled A, B, C, E, E, and F in the diagram

IV. State the function for B and C in the diagram above

1. List two tools on the following toolbar of a word processing application.

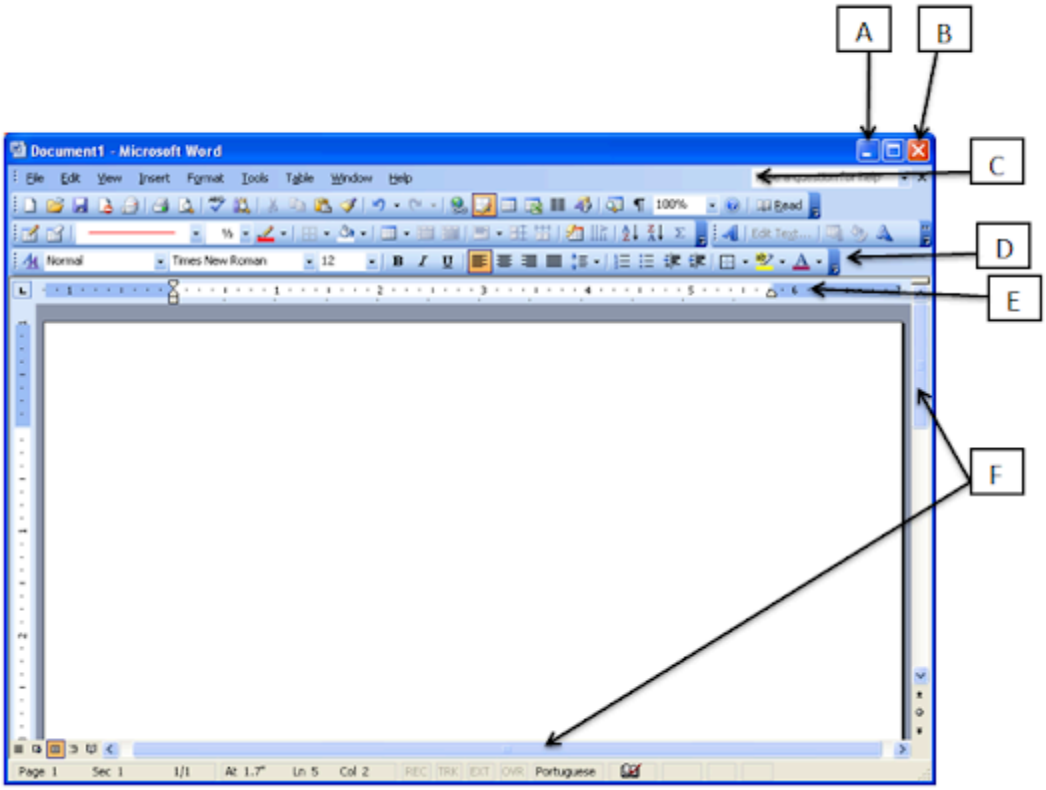
i. Standard toolbar

ii. Formatting toolbar

2. Explain the term word processor.

3. List three toolbars available in a word processing application

4. (a) Study the image carefully and use it to answer questions (i-iv)



i. What is the file name for the image above?

ii. What is the file name for image shown above

iii. Name the area represented by **A, B, C, D, E, F** in 1(a).

A……

B……

C…….

D…….

E…….

F…….

iv. State the function of **B** in 1(a) above

v. Using the area labeled **C,** state the steps required to exit the application

(b) State two differences between the Menu bar and Toolbar in an application software

1. List three, word processing application software.
2. Name two word processors
3. Study the text below carefully and use to answer questions 8(a) to (b)

A → DISEASE: HOW TO REDUCE THE RISK

Everyday our body wage war against enemies that are silent and unseen But potentially deadly. Foreign invaders such as bacteria, viruses, and **parasites, threaten your health**. You are not likely to be aware of those battles because your **immune system** repels or destroys most of the invaders before the onset of the **symptoms** — B

For thousands of years, people knew virtually nothing about the dangers of *Microscopic or other small harmful organisms.* However, the 19th Century scientists confirmed the link between germ and disease, we became Better equipped to defend ourselves. — C

Medical researchers have since eliminated or greatly reduced the Threat of some infectious diseases, including smallpox and polio, Recently, however, others, such as yellow fever and dengue, have Made a comeback — D

a. Write down the application software that was used to create the above text.

b. List two examples of the application software mentioned in (a) above

1. Give three importance of word processing
2. State at least three documents that can be produced using a word processing
3. State three benefits of using a word processing to write an essay
4. What is a toolbar?
5. State three examples of toolbars