
**DRAFT MARKING GUIDE FOR COMPUTER STUDIES 840/1
FACILITATION 2022**

SECTION A

| | |
|-------|-------|
| 1. C | 11. C |
| 2. C | 12. A |
| 3. D | 13. B |
| 4. A | 14. A |
| 5. C | 15. A |
| 6. D | 16. D |
| 7. D | 17. A |
| 8. D | 18. B |
| 9. D | 19. C |
| 10. D | 20. C |

SECTION B

21. (a)
- (i) Define the term *computer ethics*?.
Refers to a set of moral principles that regulate the use of computers.
OR
Moral guidelines of computer users while buying, utilizing and disposing off computers or their parts.
1x1 = 1 mark
- (ii) State *two* computer ethical guidelines demonstrated while using a Computer.
 - Intellectual property (connected with software ownership)
 - Computer crime. (use all necessary measures to guard your computer)
 - Privacy anonymity.Any 2x1 = 2marks

(a) Computer Evolution

This refer

- Change in computer technology right from where computers were first used to present.
- Refers to the gradual development /improvement/advancement /growth of computing devices and technology from simple to more complicated and advanced forms.

NB Deny mark for stages and generations (**emphasis be on mechanical change of devices**)

Any 1x1 = 1marks

(b) Computer generation

- This refers to the advisement in computer technology over a period of time.
- This refers to change in computer technology over a period of time.
- Computer generation is the technological advancement which has been classified into five generation.

Any 1x1 = 1marks

(c) Versatility.

Ability of computers to perform different tasks at the same time. Any 1x1 = 1marks

(d) **Diligence:** (consistency) A computer can perform same tasks over and over again without getting tired of bored.

(b) State two characteristics of the following computer generation.

Second generation

- ✓ They used transistors for their operation.
- ✓ They were reliable compared to first generation computers.
- ✓ Memory size expanded to 32 kilo bytes of RAM.
- ✓ Speed increased to 200,000 -300,000.
- ✓ Used magnetic core memory.
- ✓ They were v small in size compared to first generation computers.
- ✓ Generated less heat compared to first generation.
- ✓ Consumed less power.
- ✓ Produced less heat compared to first generation computers.
- ✓ They supported machine and assembly languages.
- ✓ Had no operating system.

Fourth generation

- ✓ They used very large scale integrated circuit.
- ✓ They were very cheap such that schools can afford to buy them.
- ✓ Speed increased to 50 MIPS.
- ✓ They were portable and reliable.
- ✓ They were very small in size.
- ✓ Concepts of internet were introduced.
- ✓ Computers became easily available.
- ✓ GUI and pointing devices enables a user to learn to use the computer quickly.
- ✓ Hardware failure were negligible.
- ✓ Fourth generation computers Need no special language for each processor.
- ✓ Fourth generation computers Have a variety of operating systems (windows. Linux .UNIX etc)
- ✓ Four generation computers have internal fans to cool the CPU and send out the warm air .and input and output is done

22. (a) (i) Computer hardware.

1x1 = 1mark

Refers to;

- Any part of the computer that you can touch.
- Physical and tangible parts of computer.
- Any part of computer tangible and visible.

(ii) Category

Output hardware

Example

- Monitor
- Printer
- Speaker
- Head set
- Disk drives
- Facsimile

Category

Input hardware

Example

- Keyboard.
- Mouse.
- Light pen.
- Digital camera.
- Scanner.
- Microphone.
- Track ball.
- Touch screen.
- Touch pad. (Glide pad)
- Sensor.
- Graphic tablets.
- Stylus.
- Game pad.
- Cyber glove.
- Remote
- Hand writing recognition
- Optical character recognition reader. (OCR)
- Optical mark recognition reader.
- Barcode reader.
- QR code reader. (Quick Response Code Reader)
- MICR Reader. (Magnetic Ink Character Recognition)
- Speech recognition.
- Image scanner.
- Digital Camcorder.
- Webcam.
- Digital Video Recorder.
- Digital Video Camera.
- Digital Dictaphone.
- MIDI device

1x1 = 1mark

- (iii) Distinguish between **Biometric devices** from **computer Peripheral devices** Any 2x1 = 2marks

Biometric devices

- Devices that identify personal biological characteristics.
 - This authenticates a person's identity by verifying personal characteristics eg voice.
- OR
- Is a security identification and authentication device, which uses automated methods of verifying or recognizing the identity of a living person based on a physiological or biological characteristic.

- (v) Examples of **biometric devices** you know. 2x1 = 12mark

- A finger print scanner.
- A voice scanner or a voice recognition system.
- A signature scanner/ verification system.
- A hand geometry system.
- An iris recognition system.

- (b) (i) **Cold booting.** Is the process or method of turning, starting or switching on a computer that has been switched off completely.

WHILE

Worm booting / soft boot. Is the method / process of re-starting a computer system that is already switched on.

(ii)

- (a) BIOS(ROM - BIOS)

BIOS(ROM - BIOS) – Keeps the computer's basic start up information OR Contains sequence of instructions the computer follows to load the operating system and other files when the computer is switched on.

- (b) **CMOS** – Used to store configured information about the computer.

23. (a) (i) Spread sheet

This is application software that organises data in rows and columns and perform calculation.

WHILE

Database software

Application software that create, manage, protect and provide access to data base.

- (ii) a) Validation rule.

Validation rule. An expression that must true whenever you add or change the values in a given field.

- b) **Validation text.** A message displayed when a value violates the expression in the validation rule property.

1x1 = 1 mark

(b)

| KABALA HIGH SCHOOL Students registration form | |
|--|--|
| <div style="border: 1px solid black; padding: 2px; margin: 5px auto; width: 80%;">Reg</div> <div style="border: 1px solid black; padding: 2px; margin: 5px auto; width: 80%;">BH/00</div> | <div style="border: 1px solid black; padding: 2px; margin: 5px auto; width: 80%;">Gende</div> <div style="border: 1px solid black; padding: 2px; margin: 5px auto; width: 80%;">F</div> |
| <div style="border: 1px solid black; padding: 2px; margin: 5px auto; width: 80%;">Surnam</div> <div style="border: 1px solid black; padding: 2px; margin: 5px auto; width: 80%;">Kirunda</div> | <div style="border: 1px solid black; padding: 2px; margin: 5px auto; width: 80%;">Country of</div> <div style="border: 1px solid black; padding: 2px; margin: 5px auto; width: 80%;">Zimbabwe</div> |
| <div style="border: 1px solid black; padding: 2px; margin: 5px auto; width: 80%;">Other name</div> <div style="border: 1px solid black; padding: 2px; margin: 5px auto; width: 80%;">Cate</div> | <div style="border: 1px solid black; padding: 2px; margin: 5px auto; width: 80%;">District of</div> <div style="border: 1px solid black; padding: 2px; margin: 5px auto; width: 80%;">Funtula</div> |

- (i) Form
- (ii) It enables add and update records in the database
- (iii) 1 or one record
- (iv) Text

(c) Name any One types of.

(i) Entries entered in spread sheet.

- ✓ Label
- ✓ Numbers
- ✓ Numeric
- ✓ Formulae
- ✓ Macros

(ii) Different operations, which you would expect in a spreadsheet cell.

- | | |
|---|----------------|
| * | Multiplication |
| / | Division |
| + | Addition |
| - | Subtraction |
| % | Percentage |
| ^ | Exponential |

(iii) Types of number format you would expect in a spreadsheet cell.

- | | |
|-------------|-------------|
| -General | -Percentage |
| -Number | -Fraction |
| -Currency | -Text |
| -Accounting | -Special |
| -Date | -Custom |
| -Time | |

24. (a) **Computer networks.**

- Connection or interconnection of two or more computers for resource sharing.
Eg printers, files, storage devices etc
- The interconnection of two or more computers and other devices for purposes of sharing information and resources.
- Interconnection of computers using a **transmission media** for the purpose of communication and resource sharing.
- Two or more computers that are linked in order to share resources.

(i) State **two** advantages of networked computers over stand alone.

- Facilitate communications e.g. through electronic-mail, chatting in chat rooms
- Reducing on cost by sharing hardware like printers and software.
- It allows for tight control over who has access to what data.
- It allows sharing of data and information stored on other computers on the network.
- It enables online learning and collaborative research
- It allows access to free common databases and databanks like free software, as in banks like ATM.
- It allows for advertising tools for products and services
- It allows access to more entertainment, leisure, clubs e.g. e-zoos.
- Has enabled improved travel service through e-books and e-reservation.
- News updates can be got on climate, weather, politics, and sports.
- Provides for online employment e.g. telecommuting.

(ii) Give any **one** factor that influences the speed of access on the network.

- **Bandwidth**
- **Number of computers connected to the network**
- **Type of net work media used**
- **Topology**
- **Location of your computers on the network**

(b) Distinguish between

(i) **Simple transmission from Full duplex transmission.**

- **Simplex**

Simplex transmission: Where by data can travel in only one direction at all time
e.g. radio stations and TV

WHILE

- **Full-duplex**

A full-duplex system allows communication in both directions, and unlike half-duplex allows this to happen simultaneously. Example: Telephone, Mobile Phone, etc.

(ii) **Half duplex from Data communication**

- **Half duplex**

A half-duplex system allows communication in both directions, but only one direction at a time (not simultaneously). e.g radio call

Data communication

➤ Refers to the process of transmitting data signal from one point to another through the network.

(iii) Mention any *two* services provide by internet.

- World WideWeb
- Electronic mail
- Mailing list
- File Transfer Protocol
- News Group
- Instant Messaging
- Message boards
- Video conferencing
- Chart room
- Teleconferencing
- Telnet.
- Online Banking
- Internet Telephony
- Online Shopping
- Web Directory
- Search Engines
- Webcasting
- Social Networking
- Cloud Computing
- Electronic Commerce/e-commerce

25 (a) Distinguish between **presentation software** *from* **word processing**.

Presentation software

Is a software program that helps to create, organise and displays information inform of slide shows to audience.

WHILE

Word processing

This is application software/ program used to create, edit, save, store and print text and graphic documents. eg lotus.

(b) (i) State any two power point power point movement you know?

- Entrance
- Transition
- Custom animation

(ii) Mention any one qualities of a good presentation.

- Use of appropriate formats.
- An introduction and conclusion.
- Use uniform background.
- Application of minimal transition and animations.
- Simple and precise content.
- Relevant graphics.
- Appropriate layout.
- Minimum graphics
- Show have a introduction and conclusion.

(c) (i) State two advantages of using electronic word processor over manual type writer. 2x1 = 12mark

| WORD PRCESSOR / MS WORD | TYPE WRITER |
|---|---|
| ✓ Documents can be previewed before printing. | ✓ Print preview is impossible |
| ✓ Multiple copies can be printed at a time. | ✓ One copy is printed at a time |
| ✓ Very fast and convenient. | ✓ Slow and inconvenient. |
| ✓ High quality output. | ✓ Poor quality output. |
| ✓ Images and graphics can easily be printed. | ✓ Images and graphics cannot be printed. |
| ✓ Documents can be formatted to look attractive. | ✓ Formatting is impossible. |
| ✓ It can perform spell and grammar checkers suggests a proper correction. | ✓ Spell and grammar checkers cannot be applied. |
| ✓ Documents can be typed, saved and printed later. | ✓ Documents cannot be saved for feature references. |

(ii) Explain the following terms as used in word processing.

a) A **superscript** and **subscript**

2x1 = 12mark

A superscript. Is a word processing tool that places text above another, e.g. X²

WHILE

A subscript. Is a word processing tool that places text below another, e.g. X₂

b) **Word wrap** and **Text wrap**

Word wrap: This is the feature that allow a user to type continuously without pressing the enter key at the end of the line.

WHILE

Text wrap: This allow a user to surround text on the image.

26. (a) Distinguish between **System software** from **Application software**
Software

- This is the type of software that controls the operation of computer and its devices.
- Software which are designed to configure, analyse, optimize and maintain a computer in its working operations.
- Software responsible for the operation of a computer. It is usually supplied by the manufactures of a computer.
- System software is a type of computer program that is designed to run a computer's hardware and application programs.

(b) Explain the following terminologies.

(i) Device driver.

Is a program that controls a particular device attached to a computer.

OR

Is a program that allows the operating system to communicate/interact with specific system devices/peripherals e.g. printer driver, scanner driver, VGA drivers, System board drivers etc.

(ii) Utility program

(iii) This is a type of system software that performs a specific task usually relating to managing a computer, its device or its programs.

(c) (i) State any two management functions of operating system.

Error management

Managing storage media and files.

Monitoring system performance:

Memory management.

(ii) State any **two** roles of the following utility programs

| Anti- virus utility | Screen server utility |
|--|--|
| <ul style="list-style-type: none">✓ It detects computer viruses.✓ It cleans files that are infected with computer viruses.✓ It isolates / quarantines / vaults computer viruses.✓ It blocks installation of programs that are infected or not trusted.✓ It scans files and devices with computer viruses.✓ It deletes computer files that have viruses. | <ul style="list-style-type: none">✓ For security purpose✓ For entertainment✓ For advertisement✓ Prevent phosphor burn on screen✓ Uniform look✓ Information e.g Static or realtime information |

- (iii) In the table below, state any one advantage and disadvantages of Customized software and Off the shelf software.

| Advantages | |
|--|--|
| Customized software | Off the shelf software |
| <p>The software usually meets the user requirement.</p> <p>It can easily be modified/ Flexible.</p> <p>It offer more control, over the results.</p> <p>It does not contain unnecessary facilities.</p> <p>It gives a significant business advantage over your competitors.</p> <p>It can be more easily integrated with existing software.</p> <p>It provides greater efficiency and better customer service as it addresses the specific needs of an organization.</p> <p>It will give competitive advantage over other companies dealing in the same business.</p> <p>It can't easily be pirated due to limited access to the outsiders.</p> <p>It has higher user satisfaction.</p> | <ul style="list-style-type: none"> ✓ They are cheap ✓ Readily available ✓ Few cases of errors ✓ They have documentation and help provided/tutorials/user manuals ✓ They can easily be got online ✓ User friendly since they made to serve/benefit a bigger market ✓ Flexible ✓ Can be customized to suit user needs ✓ Can do several tasks ✓ Can be acquired for free ✓ There is online software support ✓ No need for specialized skills ✓ Less time consuming in acquiring the software. |
| Disadvantages | |
| Customized software | Off the shelf software |
| <ol style="list-style-type: none"> 1. The software may be unstable, unreliable and full of bugs if you pick a wrong developer. 2. The investment required is much higher than with packaged software. 3. It is difficult to pick a right developer because most of the developers are unprofessional. 4. The development process of this software takes a lot of time. 5. No technical assistance or documentation is given by the developer. 6. It does not have the functionality you might need. 7. It only targets the platform the vender picks | <ol style="list-style-type: none"> 1. The buyer, user or purchaser does not have a direct control over the package. 2. The organization may pay for features never used. 3. Software may not be suitable to some of organization's task. 4. Software can be highly complex and will usually include large sections. 5. On – going licensing costs can add to the overall cost of an Off-the-shelf software. 6. It may not provide a single solution to your requirement. 7. It is susceptible to virus attack 8. Less security integrity |

SECTION C: (20Marks)

27. A computer system comprises of human ware, hardware, software, data procedure and communication. Describe the importance of each component. (20marks)

Describe the importance of each component

(Each component should be explained, giving its importance and each carrying 3 marks)

Computer system. Is the working computer with peripheral devices connected together in the process of inputting, storage and outputting information? 2 marks

Human ware. Is the operator of both hardware and software

- He is to handle the operation and maintenance of the computer system.
- Operate the computer system
- Designs programs and assigns instructions to the computer
- Troubleshoots computer problems
- Determines when to turn on and off the computer system and which component to operate

Hardware – These are physical components of the computer

- It is to hold the software instructions in order for machine to work.
- Some for storage devices in order to keep data for future use.
- Transferring information
- Turning soft copies into hard copies.
- Displays information out of the computer
- Inputting and outputting information from the computer
- Processing the data into information like CPU motherboard
- Some for communication from one computer to another

Software - The instructions / programs that govern the computer

- Help in giving commands to the computer especially when one wants to perform work
- Helps a user to build a new program depending on user's needs
- Data procedures & communication
- Sending out information to another person.

Procedure – these are steps taken to execute commands in a computer

- They guide the user in performing assignments
- They guide the computer in performing assignments

Data – are raw facts ready for processing to give information

- It is turned to information
- It helps the user to operate the computer

Keeps the computer in operation

Communication – feedback between the user and computer / gadget

- Helps in correcting mistakes
- Helps in giving and executing commands
- Guiding the user
- Alerting the user of any errors
- Giving confirmation of the processed data

28. The growth of information technology is greatly depends on ict tools and internet. As a computer student, describe the implications of internet in the world of ict today. **(20marks)**

Positive impact of internet

- Research
- Sharing Information
- Business
- Job research
- News
- Job opportunities
- E- learning
- Entertainment.
- Downloading
- Social net working
- Online storage

Negative impact of internet

- Spamming
- Pornography
- Theft of Personal Information
- Social Disconnect
- Outdate material
- Piracy
- Virus.
- Wastage of time
- Expensive

29.(a) As a computer student, you have been asked to brief a person using a computer about cyber crime. Explain the different forms of cyber crime you know. **(10marks)**

- | | |
|--------------------|----------------------------|
| ❖ Hacking | ❖ Spamming |
| ❖ Cracking | ❖ Creating Malware |
| ❖ Fraud. | ❖ Denial of service attack |
| ❖ Spoofing | ❖ Backdoors Attack |
| ❖ Pornography | ❖ Software theft |
| ❖ Phishing | ❖ Eaves dropping |
| ❖ Espionage | ❖ Electronic trespass |
| ❖ Cyber extortion | ❖ Plagiarism |
| ❖ Cyber bullying | ❖ Software piracy |
| ❖ Cyber stalking | ❖ Exit scam |
| ❖ Cyber vandalism | ❖ Identity theft |
| ❖ Cyber contraband | |

Mentioning = 1 mark
Description =1 mark (by definition or explaining)
Any 5x2 = 10 marks

(b) Describe any *five* different ways how cyber crime can be controlled.

(10marks)

- Using strong passwords
- Installing latest antivirus software
- Activating firewall
- Data encryption
- Practicing Data backup
- Using biometric devices
- Authentication:
- Authorization:
- Intrusion detection
- Call back system
- Sensitizing people using a computer about the computer crime.
- Burglar proofing.
- Use of chains and padlocks.
- Strict rules and regulations.
- Use of lightening arrestors.
- Use of surge protectors
- Installation of uninterruptable power supply (UPS)

Mentioning = 1 mark
Description =1 mark (by definition or explaining)
Any 5x2 = 10 mark