



JINJA JOINT EXAMINATIONS BOARD
MOCK EXAMINATIONS 2022
MARKING GUIDE
840/1 COMPUTER STUDIES

SECTION A (20 MARKS)

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

SECTION B(60 MARKS)

21. (a) Define the term computer evolution

Computer evolution is the gradual development/improvement/modification/advancement/growth of computing devices/technology from simple to more advanced forms

1 mark

(b) Name the **key** characteristic that was introduced in the following computer generations
 (3 marks)

First generation

Vacuum tubes

Second generation

Transistors

Fifth generation

Artificial intelligence of machines/robotics

(c) What is a computer crime?

These are computers and technology used for further illegal ends

(d) State three symptoms of a computer with a malware

- It shuts down/restarts unexpectedly
- The speed of the computer reduces
- The computer displays unnecessary error messages
- Files disappearing from the computer
- Displaying unknown applications
- Freezing of the computer

**Any three
3marks**

(e) Give two possible dangers of using pirated software

- Risks of infecting your PC with malware or viruses
- No updates for pirated software
- When the software malfunctions, you cannot get help from the developer
- Chances of getting caught and prosecuted
- Increased chances that software may malfunction

**Any two
2 marks**

22. (a) State two examples of hardware output devices

- LCD monitors
- Projectors
- Printers
- Speakers
- Plotters
- Braille embossers
- Interactive white boards
- Headsets

**Any two
2 marks**

(b) Mudondo's PC has a hard disk of 1TB full of data and she would like to back up the data to external hard disks. Each external hard disk has capacity of 512GB.

(i) State the number of GBs in 1TB

$$1TB = 1024GB$$

(ii) Determine the number of external hard disks she would need to backup all her data

$$1TB = 1024GB$$
$$\frac{1024}{512} = 2$$

1 mark for dividing
1mark for getting 2

She needs 2 external hard disks

(c) State three reasons for updating firmware for a given hardware

- It improves on functionality and features of your device
- Provides fixes to any performance issues that may occur
- Firmware update also helps a device to remain competitive with newer models

**Any 3 points
3marks**

(d) Explain the meaning of troubleshooting

- Troubleshooting is a systematic approach to problem-solving that is often used to find and correct issues with electronics and software systems
- It is the process of identifying and correcting a fault with the hardware or software.

2marks

23. (a) Define an input mask as used in database management systems

A pattern of all data to entered in a field

1 mark

(b) State two characteristics of a primary key

- It uniquely identifies each record
- A table can only take on one primary key
- Primary key column cannot accept null values
- It enforces uniqueness by not accepting any duplicate values

**Any two
2 marks**

(c) State a situation that can lead to each of the following spreadsheet error messages

i. #####

- When the column is not wide enough to accommodate the values

1 mark

ii. #DIV/0!

- When trying to divide by zero

1 mark

iii. #Name!

- It occurs when you incorrectly type the range name
- When you refer to a deleted range name
- When you forget to put quotation marks around a text string in a formula

Any 1

1 mark

iv. #Null!

Is usually the result of a typo where a space character is used instead of a comma(,) or colon (:) between two cell references

1 mark

(b) Give three advantages of using electronic spreadsheets in managing students' records.

- Built-in functions
- It is very easy to update data
- Auto fill feature which helps to save time during data entry
- files can be saved in different places including online, making it safer
- Quick methods of carrying out data analysis for example use of charts

Any three points

3 marks

24. (a) State three advantages of using a wireless network

- Easy access and availability
- Flexibility
- Its faster to install or setup a wireless network
- Cheaper to install
- Reduced maintenance costs
- Wider reach of the network
- Increased scalability. Wireless networks can be specifically configured to meet the needs of specific applications

Any 3 points

3marks

(b) Describe the following terms used in internet

i. Website

A set of related WebPages located under a single domain name typically produced by a single person or an organization

2 marks

ii. Browser

A software program used to display WebPages

2 marks

iii. Bandwidth

The amount of data transmitted over an internet connection in a given amount of time.

2 marks

(c) Give one advantage of using online storage facilities

- Data can be accessed any time anywhere
- Data is at reduced risk of being lost
- Reduces cost. No cost for buying an extra drive

1 mark

25. State the importance of the following features as used in word processing

i. Wrap Text

It helps the user to have control on how pictures and charts are positioned on the page

2 marks

ii. Format painter

It helps the user to copy formatting from a piece of text and apply it on another

2 marks

(b) State three advantages of using word processor over typewriters

- Editing is possible
- Many formatting features
- Document can be saved
- Spellings and grammar can be checked automatically
- It is easy to link one document to another
- It is possible to include illustrations such as charts and pictures in a word document unlike a typewriter

Any three points

3 marks

(c) What is a slide master?

A slide master is the top slide in the hierarchy of slides that stores information about the theme and slide layouts of presentation, including the background, color, fonts, effects, placeholders and positioning.

1mark

(d) Give two reasons why it is important to add sound to a presentation

- It makes the presentation more attractive
- It makes the presentation easy to understand
- It can help to keep the audience engaged
- Relating the text with music piece makes the audience connect with the presentation

2marks

26. (a) Outline three types of **system software available in a computer.**

- Operating system
- Utility software
- Programming languages

3marks

(b) Distinguish between a compiler and an interpreter as used in programming

- A compiler is a computer program that transforms the entire source code written in a high level programming language into object code for execution.

While

- An interpreter is a computer program that directly executes a high level programming language one line at a time to run each time the source code is run because no object code is generated.

2marks

(c) What is the meaning of an application package?

Application package refers to a program that is designed to help the user to accomplish specific tasks.

1mark

(d) Outline three examples of application software commonly used in Uganda.

- Word processing software such as Ms office word
- Spread sheet software like Excel
- Microsoft expression web
- Auto card
- Adobe page Maker
- Nero showtime
- Microsoft office picture manager
- Ms publisher

- Ms Access
- Ms PowerPoint

**Any three points
3marks**

(e) State one factor you would consider when buying application software for computer

- The cost of the package
- Compatibility with your current platform
- The available software updates from then company
- Support from the vender to fix bugs

**Any one point
1mark**

SECTION C (20 MARKS)

27. (a)Describe any five requirements for setting up a local area network

- **Computers with Network interface card.**

The computers will act as sending and receiving devices. For a computer to connect to a network, it must have a network interface card.

- **Server:** A computer that provides resources, data, services, or programs to other computers known as clients

- **Network switch**

A device that connects devices such as computers, printers, wireless access points in a network to each other, and allows them to exchange data packets

- **Router for internet connection**

A router is a device that sends or routes information between two networks (for example between a home network and internet).Routers find the quickest paths for sending information, which makes the network connections faster.

- **Wireless Access point(just access point):** A device that creates a wireless local area network or WLAN usually in an office or large building

- Client Computers with network interface card

- **Hub**

A hub is a device used to connect computers on a network. It acts as a central point for cables on the network. The hub sends information received from one computer to all other computers on the network

Terminated Ethernet cables

Any five items explained 10 marks

(b) Explain five possible causes of failure of a computer network

- Problem with network adapter drivers i.e. missing or not working
- Link failure caused due to fibre cable cuts or network or network congestion.
- Problem with power connection/outages
- Server hardware failure
- Operational human errors and mismanagement of devices
- Security attacks such as denial of service attacks(DoS)
- Incompatibility between firmware and hardware devices
- Failed software and firmware upgrade

**Any 5 points explained
10 marks**

28. Define a malware

Malware is software that is specifically designed to disrupt, damage, or gain unauthorised access to a computer system

2 marks

(a) Explain five ways through which computer viruses are transmitted

- Downloading infected files, pirated music games etc
- Through sharing removable storage media
- Use of infected boot disks(a removable data storage medium from which a computer can load an operating system)
- Visiting infected websites
- Opening spam email or email attachments from unknown sources

**5 points explained
10 marks**

(b) Outline four ways of ensuring safety of computers in a computer laboratory

- Installing anti-virus and regular scanning
- Installing burglar proof s
- Covering computer after use
- Installing fire prevention and control equipments
- Connecting Stable power supply such as UPS
- Proper shut down and boot procedures to avoid interruption of the OS
- Regular backup of the system and application files
- Avoid using pirated software
- Installing a fire extinguisher on the building
- Control of un authorized access through system encryption

Any four ways 8 marks

29. State the function of each of the following computer components

i. VGA cable

Video graphics array cable is used to carry visual display data from the CPU to the monitor/screen

2marks

ii. The fan

- Keeps the power supply cool.
- Expel warm air from inside and move air across the heat sink

2marks

iii. RAM

Random Access Memory (RAM) is the memory chips that temporarily hold data and instructions required during processing

iv. Motherboard

The motherboard is a single circuit board that provides the path through which the processor communicates with internal and peripheral devices.

2marks

v. CPU

The *central processing unit (CPU)*, is a chip that interprets, carries out the basic instructions and manages most of a computer's operations.

2marks

(b) Explain five reasons for restarting a computer

- *When a computer freezes*
- *After installation of a new software*
- *When a new hardware is installed*
- *To recover from a deadlock.*
- *When the computer slows down*
- *When a certain peripheral has issues*

**5 points well explained
10 marks**

END

