

The table below shows specifications of two computers X and Y.

Computer specifications	Computer X	Computer Y
Processor	Intel ® 3.2 Ghz	Intel ® 3308Mhz
RAM	1GB	2000MB
Hard disk	4600MB	50GB
Monitor size	19"	15"

a) Which of the two computers would you recommend for a company to buy?

Computer X

b) State two reasons to defend your answer;

Higher processor speed 3.2 GHz

More random access memory 1GB

c) Which is the least important of the computer specifications given in the table?

Monitor size

d) State one reason defending your answer above.

Does not affect the output of work

Does not affect performance of the computer

2a) Explain how computers can professionally be used by:

i) Teachers

Collaboration tool and exchange of ideas

Tool for teaching and learning

Assess and grade learners

Store learners' notes and marks

ii) Doctors

Monitoring patients

Medical consultation

Telemedicine

Therapy

Simulations

Medical research

Carrying out operations on body parts

Scanning for diseases

Prescriptions of drugs

b) State one health risk associated with continued usage of computers.

Germs from the keyboard

Eye defects

Repetitive strain injury

Techno stress

Body pains

Headaches

Fatigue

Wrist pains

3a) Explain the following terms in a spreadsheet

i) Values

Data that can be manipulated or calculated

ii) Labels

*Text based entry that identifies data
Words on column headings*

Non mathematical data

b) Name a symbol used when writing functions in a spreadsheet.

Equal sign (=) or @ sign or plus sign (+)

4a) Give three devices that can be used to transfer files from one computer to another

Flask disk

Zip disks

External hard disk

Floppy diskettes

Compact disk

Memory cards

Digital versatile disk

Magnetic tapes

Blue ray disk

b) Explain the following methods of transferring a file from one location to another.

i) Drag

Method of moving a file or folder from one location on the screen to another by use of a mouse

ii) Copy

Method of creating a duplicate of a file or folder

5a) Give three factors a company should consider before buying any storage devices.

Storage capacity

Cost

Safety of media/nature of work to be stored

Compatibility of the media with system-IDE, SATA or USB

Brand/make/durability

Data access speed

b) How many kilobytes are in six megabytes per second?

1MB=1024KB 6MB=1024X6

6144kilobytes

6a) Give one use for each of the following computer devices

i) Power supply unit

Some have a fuse to protect the system

Convert AC from mains to DC used by the system

Receive and distribute power to different system parts in required voltages

Alternate power to regional voltage settings (110 or 240V)

Provide protection to user against electrical signals

ii) System case

Provide earthing for the system

Facilitate movement of the system as a unit

House the computer processing hardware

Protect internal components against dust, dirt and falling objects

Provide attachments for holding different units together

iii) CMOS battery

Powers up the CMOS chip which stores configuration information about the computer.

b) Explain the following

i) Analog device

Can measure, record, and reproduce continuous data/information

Receive data and information inform of changing phenomena

ii) Digital device

Receive and understand data and information in binary digits-0s and 1s

Generate, store, process data using discrete values-numbers and digits'

7a) State three types of computer software

Computer aided design (cad) software

Multimedia software

Project management software

Personal information managers (PIM)

Presentation software

Graphics processing software

Desktop publishing software

Database software

Spread sheet software

Word processing software

Paint/image editing software

Video and audio editing software

Web page authoring software

Communication software

Education software

Personal finance software

Reference software

Entertainment software

b) Differentiate between a software version and a release.

A software version is a major upgrade in a software product leading to even change in the software interface and some procedures whereas a software release is the public or private distribution of a new or upgraded version of a software product.

8a) State two internet based tools that support web based research.

Search engines like Google

Web browsers

Hyperlinks

Online libraries/books like Google books

Online encyclopedia like Wikipedia, Encarta

Gopher

b) Identify three things one would require in order to get connected to the internet.

Any communication hardware like modems, routers, switch, hub

Communication software for browsing

Internet service provider for connection

Physical/wireless connection media

Network operating system

Phone/computer

9) Outline five factors which determine data transmission speeds over the internet.

Nature of material one is trying to access or send-graphics tend to load slowly

Bandwidth

Modem/routing device speed and positioning

Network data traffic at a time

Data transmission media

Environmental factors/natural conditions-rainy, cloud, stormy weather and thunder usually affect transmissions negatively
Malfunction of computers-hardware problems-poor network card, video card or signal receiver
Computer processor speed
Malware, spyware and viruses-software problems-cookies
Memory available
Computer internet setting

10) Give five factors an organization should consider before choosing a local area network (LAN) model.

Size of organization: a point to point is ideal for about ten users at a time
Networking budget: where server based networks demand much more money
Needs of the network itself: administrator servers
Level of data security needed: server based network models are more secure
Amount of traffic expected
Nature of business
Level of administrative support
Future needs of the organization-scalability

11a) Write the initial procedure of booting a computer system.

Switch on the mains
Switch on the UPS or stabilizer
Switch on the system unit
And finally switch on the monitor

OR

Switch on the mains
Switch on the UPS or stabilizer
Switch on the system unit and finally switch on the monitor
Power on self test is conducted by the BIOS
Bootstrap loads the OS into RAM
The desktop is activated

b) Give any two measures taken to ensure that computers in a laboratory are safe.

The computers should be properly switched on or off
Avoid illegal connections and disconnections
Avoid exposing computers to heat/direct sunlight
Keep away with bags
Foods and drinks should not be allowed in the computer laboratory
Keep the computers in a dust free environment
The repairs should be done by technical persons
The computers should be connected to the UPS or stabilizer
Keep fire extinguishers to guard against fires
Computers should be allowed to cool down before covering them
Lock the laboratory after use of computers
Use burglar proofing
Install and update antivirus
Have usernames and passwords to access the computers
Setup lightening arrestors to guard against thunder
Use firm tables to hold the weight of hardware

12a) A computer file is made up of a file name and a file extension.

i) What is the purpose of a file extension?

To identify the file type

Helps to organize files

Files can easily be located

Determine which program to open the file

ii) Write down the file extension for a word processed document.

.doc

.docx

b) In which two ways can an accidentally deleted file be recovered?

Restoring from the recycle bin

Use of the undo command

Use of recovery software

Drag from the recycle bin

13) Why would there be a need to replace CRTs with LCDs?

Portable

Releases less radiations

Consumes less power

Occupies less space

Can easily be mounted onto the wall

Has inbuilt antiglare screens

14. Indicate True or False against each statement in the table below.

		True/false
a)	Windows Xp is a graphical user interface operating system	<i>TRUE</i>
b)	Presentation software supports multimedia	<i>TRUE</i>
c)	Word processors have formula bars	<i>FALSE</i>
d)	Backup is to combine the content of two or more files to produce one output file	<i>FALSE</i>
e)	The disk operating system is menu driven	<i>FALSE</i>

15) Write down any five advantages of using off-shelf applications.

Cheaper to buy

Easily available from many vendors

Thoroughly tested to eliminate bugs

Lots of user support-books, user guides, online help, discussion forums

Easy to learn and use (user friendly)

Can be customized

Easy to restore

Easy to share files

Used to perform several functions

16a) Explain the term software piracy.

Unauthorized duplication and use of computer software

b) Write down any three precautions taken to prevent software piracy.

Use of a code key/ serial

Sensitizing users on illegal use of software

Use of holograms-a component which comes with original copies and cannot be duplicated

Require software authentication and activation

Incorporate flexible licensing

Prosecute software pirates

17) The table below shows part of a database. Use it to answer the questions that follow.

EMP NO	NAME	TEL NO	SALARY	NO OF MONTHS	TOTAL PAY
E227008	Betty	0774267820	\$700,000	3	
E227011	Kintu	0701998142	\$400,000	4	

a) Write down the data types entered in the following fields.

i) TEL NO *Text*

ii) SALARY *Currency*

b) Suggest a suitable primary key.

Employee No.

c) The formula entered in the design view to determine TOTAL PAY, which is a product of SALARY and NO OF MONTHS is?

=[salary][No. of month] in the form*

[salary][No. of month] in the query*

18) State any five characteristics of a modern computer.

Speed

Accuracy

Versatile

Diligence

Storage

Automation

Artificial intelligence

Communicative

19) From the given terminologies used for internet and networks below, choose the correct one to complete each of the statements that follow.

A discussion group

Instant messaging

Video conferencing

A chat room

Online shopping

Telephony

a) The type of internet communication that allows multiple users to exchange messages in real time is called:

Chat room

b) The type of internet communication that enables individuals to post messages on a particular topic for others to read and respond to is:

Discussion group

c) The use of multimedia technologies in communication is called:

Videoconferencing

20a) Explain the following terms as used in electronic mail

i) Blind carbon copy (BCC)

Used to hide an e-mail address so that none of the recipients can see whom you have sent the message

ii) Carbon copy (CC)

Used when sending a copy to more than one address without hiding

b) State one requirement needed for one to send an e-mail.

Internet connection/network

Electronic mail account/address on any email provider sites and most of them are free for platinum users for example Gmail