**PRACTICAL: Computer QuizAnswer**

**SECTION 1:**

1. How is the telephone line used in computing?

Using a dial-up line to transmit data is similar to using the telephone to make a call. A modem at the sending end dials the telephone number of a modem at the receiving end. Computers at any two locations establish an Internet or network connection using modems and the telephone network

2. What is the function of a GUI (Graphical User Interface)? List two advantages of using a GUI.

It offers visual representations of the available commands and functions of an operating system or software program. These visual representations consist of elements like icons, menus, tabs, pointers and windows.

Allow users to easily access and manipulate available functions

Allows a user to open up multiple programs and displays these simultaneously.

3. Give four examples of embedded computers.

Embedded computers are incorporated into other devices, rather than being standalone computers. Examples include digital cameras, mobile phones, music players, specialist IT hardware

4. What is the latest version of Microsoft Windows called? Windows 10

5. List four types of pointing devices. What are their main advantages over a keyboard?

Mouse, Touchpad, Joystick Trackball. Light Pen. Optical Card Reader.

It is easier to use and handle, it is quicker to work with, it takes less time to learn,

Keyboard can cause strain injury by typing too much.

6. Describe health problems which can be caused by incorrect use of the computer.

Working at a computer can cause back, neck and shoulder pains, headache, eyestrain and overuse injuries of the arms and hands. Vision Problems and repetitive stress injuries.

7. Give four situations where you might encounter computer-based systems in your everyday life.

GPS, ATM machines, cell phones, petrol pumps, portable play stations and all other modern devices that use computer controlling units to conduct peoples featured operations.

8. What is the new Microsoft browser called? Microsoft Edge

9. What is the abbreviation MHz short for? Megahertz

10. What is the abbreviation BYOD short for? Bring your own device

11. Will more RAM increase or decrease the computers performance?

Increasing RAM will increase the speed of operation of the computer.

12. What is a Wi-Fi hotspot and give an example of one?

A WiFi hotspot is a physical location that has been provided to give users the ability to use their devices away from home. Public hotspots may be created by a business for use by customers, such as coffee shops or hotels.

13. What does WiMAX stand for?

(Worldwide Interoperability for Microwave Access) is a family of wireless broadband communication standards based on the IEEE 802. It is still widely used for wireless Internet access and there are hundreds of WiMAX installations worldwide

14. What is Bluetooth and how does it work?

Bluetooth is a wireless short-range communications technology standard found in millions of products we use every day – including headsets, smartphones, laptops and portable speakers. It works by using radio waves instead of wires or cables to connect with your cell phone, smartphone or computer

15. List the two most types of mobile Internet connections and describe how they differ from each other.

Cell phones have an in-built antenna which is used to send packets of digital information back and forth with cell-phone towers via radio waves. Mobile broadband is the term for wireless Internet access through a portable modem, USB wireless modem, or a tablet/smartphone or other mobile device.

16. What is a hot swappable device?

The procedure to exchange drives without shutting down the system is called "hot swapping;" thus, those drives are referred to as "hot-swappable."

17. Which storage category includes both RAM and ROM? CPU

18. Explain what is meant by off-line storage.

Storage media that are not connected to the computer or network. Optical discs, external hard drives and USB drives that have been removed or disconnected are examples of offline storage.

19. What is the difference between text files and document files?

TXT files contain raw text and can be created with any if not all word processing programs. TXT files do neither contain formatting nor images or other objects.

Microsoft word document (.docx) format isn’t developed by Microsoft and is the standard file format for ms word documents

20. What is the difference between a CSV file and an XLS file?

The difference between CSV and XLS file formats is that CSV format is a plain text format in which values are separated by commas (Comma Separated Values), while XLS file format is an Excel Sheets binary file format which holds information about all the worksheets in a file, including both content and formatting.

21. What does ICT Infrastructure mean?

ICT Infrastructures are all the information and communications technology infrastructure and systems (including software, hardware, firmware, networks, and the company websites) that are used in an organization.

**SECTION 2:**

Various options are given as possible answers to the following questions. Answer the questions by selecting the **letter** (A, B, C, ...) from the drop-down list or select the word *True* or *False*.

1. Some computers operating by touching the screen to select programmes and files.

**Answer:** True

2. The CPU is a computer peripheral device. True or False

**Answer** False

3. Thanks to computers, businesses have become more reliable. This statement is …

**Answer:** True

.

4. Each computer connected to the Internet must have a modem connection.

**Answer:** True

5. The ARPANETwas the world’s first operational packet switching network*.* True or False

**Answer**: True

6. Which of the following is not an operating system?

A. DOS

B. Oracle

C. Linux

D. Windows

E. None of these

**Answe**r: B

7. Which one of the following examples does not qualifies as “Computers on the move”?

1. Palmtop
2. Microcomputers (PC)
3. Notebook
4. Smart cards

**Answer:** B

8. Specialized programs that allow particular input or output devices to communicate with the rest of the computer system are called \_\_\_\_

1. operating systems
2. utilities
3. device drivers
4. language translators
5. Connectors

**Answer:** A

9. What does BIOS stand for?

1. Biological Internet operating system
2. Binary inner/outer stages
3. Basic input/output system
4. None of the above

**Answer:** C

10. USB is which type of storage device?

A. Tertiary

B. Secondary

C. Auxiliary

D. Primary

**Answer:** B

11**.** Computers have offered people many significant advantages. Which of the following is not an advantage?

**A.** saving time

**B.** automating non-repetitive tasks

**C.** connecting people

**D.** fewer human interactions.

**Answer:** D

12. One of the advantages of computers is that they increase the accuracy for …

**A.** people

**B.** machines

**C.** both people and machines.

**Answer:** C

13. Thanks to the Internet, it is possible for anyone to teach themselves new skills. This includes …

A. creating a web site.

B. becoming a plumber.

C. studying medicine.

D. all the above.

**Answer:** D

14. What is half a byte in a computer known as?

A. Bit

B. Byte

C. Nibble

D. Megabyte

E. None of the above

**Answer**: C

15. Which one of the following is the correct data type that can store a single character? This includes letters, numbers, and symbols.

A. Real

B. Character

C. String

D. Integer

**Answer:** B

16. In the file name: C:\Documents\School\ScienceAssignment.docx. What does .docx tell you?

A. File name

B. Folder

C. Extension

D. Drive letter

**Answer:** C

17. Which of the following is NOT a file extension used for graphics files?

A. .png

B. .gif

C. .toff

D. .jpeg

**Answer:** C

18. All networks can be the target of an attack, especially those that connect to the Internet. This is why it is extremely important to understand and implement basic network security. Select an option you will look at to use or do to keep the network secure:

1. firewall
2. antivirus software
3. use passwords and usernames where necessary
4. understanding BYOD environments and applying all relevant safety requirements
5. All the above

**Answer:** E

19. Ergonomics does not involve ………

**A.** Making sure people are in a comfortable position

**B.** Arranging furniture and equipment

**C.** Reducing strain on the human body

**D.** Adjusting the lighting of an area

**Answer:** B

20. Which of the following will not reduce your computer’s power usage?

**A.** Unplugging your computer when you are not using it

**B.** Reducing the brightness of your display

**C.** Reducing your CPU’s speed

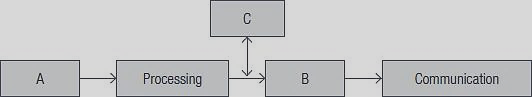
D. Turn off the lights

**Answer:** D

**SECTION C**

Answer the following questions by entering (typing) the answer next to the number as indicated.

1. Answer the questions based on the diagram below.



Name the missing stages, as indicated by the letters below:

A: **Answer**: Input

B: **Answer:** Output

C: **Answer:** Data processing

1. Your teacher is busy printing out the term class reports. Which stage is this in the information-processing cycle?

**Answer: Output**

1. Choose a concept from COLUMN B that matches a description in COLUMN A. Type only the letter next to the question on the line provided in Column A. There can be more than one answer to a question.

|  |  |
| --- | --- |
| **Column A** | **Column B** |
| 1. The structures use to store data \_\_\_A\_\_\_\_ | 1. Directories 2. Folders   C. Ctrl + X  D. Ctrl + C  E. Recycle bin  F. Extension  G. File path  H. Files and databases |
| 1. To copy a file, use the \_\_D\_\_\_\_ shortcut key on the keyboard |
| 1. Files are stored on a computer inside \_\_\_B\_\_\_ or \_\_H\_\_\_\_ |
| 1. In Microsoft Windows, all deleted files are first moved to the \_\_E\_\_\_ |
| 1. The file path always ends with the file \_\_F\_\_\_\_ |
| 1. To move a file, you should use the \_C\_\_\_\_\_ shortcut key on the keyboard |

1. The storage device is listed in Column A. Enter your answer in Column B. Choose between one: of the following data storage methods: Primary, Secondary, Off-line, Tertiary

|  |  |
| --- | --- |
| **Column A Storage device** | **Column B/ Storage method** |
| HDD | Primary |
| RAM | Primary |
| ROM | Primary |
| USB | Secondary |
| SSD | Secondary |
| DVD-RAM | Primary |
| CLOUD | Offline |

1. A computer uses RAM and ROM to store data. The table contains three statements about them - tick to show whether each statement describes RAM or ROM.

|  |  |  |
| --- | --- | --- |
| **Statement** | **RAM** | **ROM** |
| Stores the programs and data that are currently in use | ✓ |  |
| Used to boot up the computer when power is turned on |  | ✓ |
| Contents are retained when power is turned off |  | ✓ |

1. Storage devices and storage media can be categorised as primary, secondary or off-line. In Column A there are 6 descriptions in the table below.

Click on *choose an item* and select the storage device or media next to the description. In the last column select the correct storage category next to each storage device chosen in column B.

ROM, Blu-ray disc, RAM, DVD/DVD-R(+R) DVD-RW(+RW) DVD-ROM (not CD or DVD-RAM)

or SSD (solid-state drive)

|  |  |  |
| --- | --- | --- |
| **COLUMN A: Description** | **COLUMN B:**  **Choose a storage device or media** | **COLUMN C: Primary/Secondary or off-line** |
| Non-volatile memory chip, contents of the chip cannot be altered; often used to store the start-up routines in a computer (e.g. the BIOS) | ROM | Primary |
| Optical storage media that allows very high storage capacity by using blue/violet lase technology | Blue-ray disk | Secondary |
| Volatile memory that stores data, programs and the parts of the opening system that are currently in use | RAM | Primary |
| Optical storage media that uses a single spiral track and uses dual layer technology, allowing high data storage capacity. A read-only DVD disc used to permanently store data files. | DVD-ROM | Secondary |
| Non-volatile memory device that uses NAND flash memories (which consist of millions of transistors wired in series on single circuit boards) | SSD | Secondary |
| Optical storage media that uses concentric tracks allowing writing and reading to take place at the same time | DVD-R)/DVD(-RW) DVD+R/DVD(+RW) | Secondary |

1. Clip or tap to write the correct missing numbers:

1 Mb = …1000. Kb (1)

1 Tb = …1 000 000 Mb (1)

8. In some laptops, internal hard disk drives are being replaced by SSDs.

**8.1** What do the letters SSD stand for?

**Answer:** Solid state drives are non-volatile storage devices capable of holding large amounts of data.

**8.2** Mention one advantage of using an SSD.

**Answer:** much faster, offering instant-load performance**.**

**8.3** Mention one disadvantage of using an SSD.

**Answer:** expensive

9. Answer the following questions based on the file path below:

C:\My Documents\School\Technology.docx

9.1 What is shown in the file path above?

**Answer:** Word document saved in My Documents in the School folder

9.2 To what does “C:\” refer?

**Answer:** Root

9.3 A file name consists of two elements. What are they in this diagram?

**Answer:** File name Technology and extension .docx

10**.** Complete the table below by indicating in Column B whether the action in Column A is downloading or uploading. Only write Uploading/Downloading next to the number in Column B.

|  |  |
| --- | --- |
| **Column A** | **Column B Uploading/Downloading** |
| Putting photos on a Facebook wall | 10.1Uploading |
| Using a torrent to legally download movies | 10.2Downloading |
| Getting music from beemusicplayer | 10.3Downloading |
| Getting a PDF document from the Internet | 10.4Downloading |

11. Choose which of the following emails in the tables are valid or invalid? In the last column explain why you choose invalid each time.

|  |  |  |
| --- | --- | --- |
| **e-mail address** | **Valid or Invalid?** | **What makes it invalid?** |
| @domainsample.com | Invalid | No recipient name |
| anonymus@domainsample.com | Valid |  |
| -autumn-dancer@domain.com | Invalid | A special character cannot appear as the first or last character |
| jenx kitty@domain.com | Invalid | Cannot use space |
| [jenx\_kitty@domain.com](mailto:jenx_kitty@domain.com) | Valid |  |
| didwa.doe@domainsample | Invalid | No top-level domain |
| didwa.doe@domain.net | Valid |  |
| didwa.doe43@domainsample.co.za. | Valid |  |

12. What is the difference between pressing *PrtSc* and pressing *Alt* together with *PrtSc* (*Alt* +*PrtSc*)?

**Answer:** PrtSc on its own takes a screenshot of the whole desktop.

Alt + PrtSc to take a screenshot of the selected window.



13. Match the ports in Column A to the connectors in Column B.

Choose the matching letter next to the number.

13.1 D

13.2 A

13.3 B

13.4 C

Answer the following questions in your own words.

14. Briefly discuss the limitations of fixed Internet access, paying particular attention to the South African context.

15. What files can be compressed?

Certain data files, such as text files, picture files in the BMP format, and some text style database files can often be compressed by 90% or more

16. What are the effects of compressing a file?

Compressed files also take up less storage space. File compression can zip up several small files into a single file for more convenient email transmission.

17 Give an example of an animation file extension. How does an animation differ from an image?

MP4: is a file format created by the Moving Picture Experts Group (animation)

Graphics Interchange Format (GIF) .TIF of images or frames in a single file

18. What is a source code file? Give two examples of a source code file type.

Source code is generally understood to mean programming statements that are created by a programmer with a text editor or a visual programming tool and then saved in a file. An example of source code is someone using HTML code.

19. Which storage device would you use for the following tasks and why?

19.1 Copying your assignment to a different computer to be printed.

Just about any external drive, including a USB thumb drive,

19.2 Backing up all your images, videos and music files.

Google Photos (iOS, Android) is the best free tool around — even on an iPhone! Once you download the app, you can save an unlimited number of photos and videos in high quality on Google's own cloud servers, and view them from any device. You get 15GB of free storage o backup your files

19.3 Storing your programs and games.

Using an external hard drive, connect the drive to your computer or laptop with a USB cable.

**Activity 1.5 PG 35**

**Theory and Concepts**

The facilitator/teacher must assist the students in these activities.

1. Name 4 examples of mobile devices and their use.

Palmtop.PDA - Personal digital assistant.Smartphone.Tablet computer Smartwatch.Bluetooth

Communication, travelling, collaboration via social media, scanning technology (online banking)

1. What are the advantages of mobile technologies?

Higher efficiency and productivity of staff. the quality and flexibility of service you offer your customers. the ability to accept payments wirelessly. increased ability to communicate in and out of the workplace.

1. What are the concepts of wearable devices?

**Wearable technology**, also known as "**wearables**", is a category of electronic **devices** that can be worn as accessories, embedded in clothing, implanted in the user's body, or even tattooed on the skin.

1. Discuss the basic characteristics of a hard disk drive

Hard drives are generally characterized, rated and classified based on elements like storage capacity, data access performance and physical form factor. Mass Storage Devices. Available Storage Space. Data Access Performance. Device Form Factor and Connection.

1. What will happen if there is no RAM in your computer?

If you're referring to a normal PC, no, you can't run it without separate RAM sticks attached, but that's only because the BIOS is designed not to attempt to boot with no RAM installed (which is, in turn, because all modern PC operating systems require RAM to run,

1. Discuss why a computer need a memory.

Computer memory is a temporary storage area. It holds the data and instructions that the Central Processing Unit (CPU) needs. Before a program can run, the program is loaded from storage into the memory. This allows the CPU direct access to the computer program.

1. Describe what is a Network Topology.

A network topology is the arrangement of nodes -- usually switches, routers, or software switch/router features -- and connections in a network, often represented as a graph. The physical topology of a network is the layout of nodes and physical connections, including wires (Ethernet, DSL), fiber optics, and microwave.

1. Describe the difference between ports and connectors.

A **connector is** the unique end of a plug, jack, or the edge of a card that connects into a port. The **port** has either holes or a slot that matches the plug or card being connected into the **port**. Forexample: cables are plugged into Ethernet ports, and cables and flash drives are plugged into USB ports.