NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF MANAGEMENT SCIENCES

DEPARTMENT OF MANAGEMENT

QUALIFICATION: Bachelor of Business and Information Administration	
QUALIFICATION CODE: 07BBIA	LEVEL: 5
COURSE CODE: BIS521S	COURSE NAME: Business Information Systems 1B
SESSION: January 2020	PAPER: Theoretical Paper
DURATION: 2 Hours	MARKS: 100

SECOND OPPORTUNITY/SUPPLEMENTARY EXAMINATION MEMORANDUM	
EXAMINER(S)	Deoni Olivier
MODERATOR:	Godwin Kaisara

INSTRUCTIONS
1. You have to answer ALL the questions.
2. Read questions carefully before answering.
3. Please number your answers clearly.
4. Make sure your student number appears on the answering script.

PERMISSIBLE MATERIALS

1. Pen, pencil, ruler and eraser

THIS QUESTION PAPER CONSISTS OF 7 PAGES (Including this front page)

QUESTION 1 - MULTIPLE CHOICE (10 MARKS)

Please read all the questions carefully and then select one answer from the list given below. E.g. 1. A)

1.1 A collection of instructions that enable the user to interact with a computer, its hardware, or perform tasks is called?

    a) Information
    b) Data
    c) Instructions
    d) Software ✓

1.2 This layout was created to reduce finger movement when typing and to produce faster typing speeds.

    a) Azerty
    b) Dvorak ✓
    c) Qwerty
    d) Barack

1.3 What type of device is a microphone?

    a) Input device ✓
    b) Output device
    c) Storage device
    d) Communication device

1.4 What type of device is this?

    a) Output device ✓
    b) Input device
    c) Communication device
    d) Storage device

1.5 Uses of voice input include:

    a) internet messaging that supports voice conversations,
    b) VOIP - enables users to make calls over the internet. To make a call, a telephone is connected to a network cable, rather than a phone line or a call is made over a computer. Skype is a popular example.
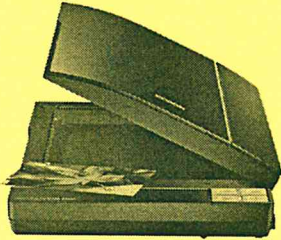   c) video calls,
    d) all of the above. ✓

1.6 .... cables are used for audio/video transmission.
    a) DVI
    b) HTTP
    c) HDMI ✓
    d) DVD

1.7 .... scanners identify a person by taking measurements of a person's .... For example, the distance between the person's chin, eyes, nose, and mouth. What is the missing word?

a) Hand
b) Face ✓
c) Nose
d) Mouth

1.8 This is called a?

a) Barcode reader
b) Flatbed scanner ✓
c) RFID reader
d) None of the above

1.9 The most common method of entering text and numerical data into a computer system is through the use of a _____.

a) Plotter
b) Printer
c) Keyboard ✓
d) Scanner

1.10 Which type of device is touch screen technology used on?

a) Tablet computers
b) Smartphones
c) Newer model laptop and desktop computers
d) All of the above ✓

QUESTION 2 – ABBREVIATIONS   **(10 MARKS)**

Please complete the following abbreviations in full:

2.1   VOIP - Voice Over Internet Protocol ✓

2.2   DVI - Digital Video Interface ✓

2.3   OCR - Optical Character Recognition ✓

2.4   QR Code - Quick Response Code ✓

2.5   TFT - Thin-film Transistor ✓

2.6   HDMI - High Definition Multi-Media Interface ✓

2.7   CCFL - Cold Cathode Fluorescent Lamp ✓

2.8   OLED - Organic Light Emitting Diode ✓

2.9   GUI - Graphical User Interface ✓

2.10   PPM - Pages Per Minute ✓

QUESTION 3 - TRUE AND FALSE   **(10 MARKS)**
Please answer the following questions and indicate whether it is true or false.

3.1   A touchpad is a small, hard, square pointing device that's sensitive to pressure and motion. **false** ✓

3.2   Another name for a quick response code is a 2-D bar code. **True** ✓

3.3   An interactive whiteboard is an instructional tool that allows computer images to be displayed onto a board using an image projector. **false** ✓

3.4   Audio includes music, speech or any other sound. **True** ✓

3.5   Cable-connected speakers are also considered as input peripheral devices of a computer system, as the input is sound or audio. **false** ✓

3.6   A digital camera is a hardware device that takes pictures like a regular camera but stores the image as data instead of printing it to film. **true** ✓

3.7   With motion input, users can guide on-screen elements using ground gestures.   **false**

3.8   The Nintendo's Wii game is blue tooth enabled. **true** ✓

3.9   _Voice Input_ Is the process of capturing full-motion images and storing them on a computer   or mobile device's storage medium. ~~~~ _True_ ✓

3.10   A mobile printer is a big heavy, battery-powered printer that allows a mobile user to print from a laptop, smartphone, or other mobile device while travelling. **False** ✓

QUESTION 4 - STRUCTURED QUESTIONS   **(22 MARKS)**

4.1   **Name and explain the three (3) different ways of shutting down your PC.**   **(6)**

A **Shutdown** – You can turn the PC off completely.

B **Sleep** – It uses very little power, your PC starts up faster, and you're instantly back to where you left off. You don't have to worry that you'll lose your work because of your battery draining, because Windows automatically saves all your work and turns off the PC if the battery is too low

C **Hibernate** – This option was designed for laptops and might not be available for all PCs. "Hibernate" uses less power than sleep and when you start up the PC again, you're back to where you left off (though not as fast as "sleep").

4.2   **Define the following terms: Resolution and Dot Pitch.**   **(4)**

Resolution: Screen resolution refers to how clearly text and images are displayed on your screen. It indicates the number of pixels displayed horizontally and vertically on your screen.

Dot Pitch: This measurement describes the sharpness of a screen display. It measures the distance between the pixels used to display the image on the screen.

4.3   **Define what an operating system is and list the types of operating systems.**   **(5)**

An operating system is software that forms the foundation or platform for any other software to run on your computer. Types: Desktop operating system, Server operating systems and Mobile operating systems.

4.4   **Briefly discuss the Input Process Diagram and map out a picture diagram to aid your explanation.**   **(7)**

- Data goes to the memory of the computer/device,
- Data is interpreted by the CPU.
- The CPU processes the instructions (data) to transform this into information.
- This instruction or data received from the user can be in various forms. It can be in the form of software (programs or applications), commands and user responses.
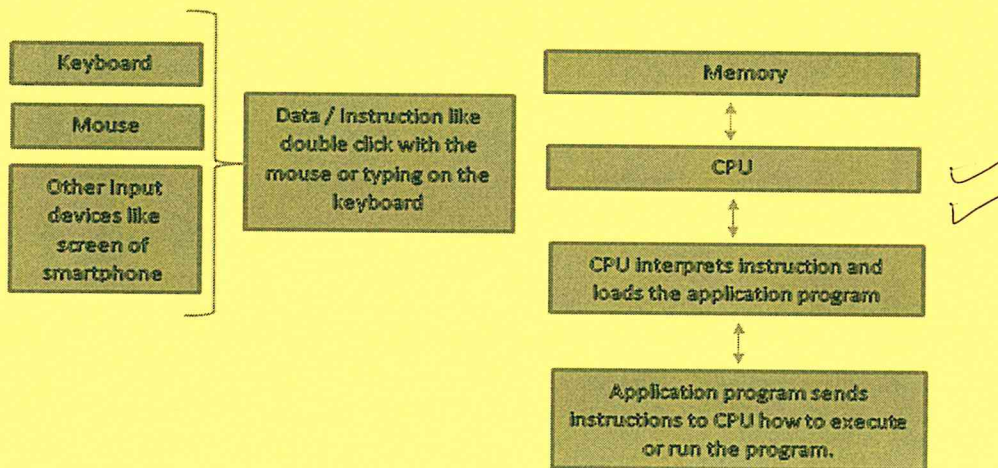
QUESTION 5 - STRUCTURED QUESTIONS (20 MARKS)

5.1. Differentiate between personal printer and network printer. (5)

Personal printers support individual users and may be connected to only a single computer for home or small business use.

Networked or shared printers are used for high-volume, high-speed printing. These printers are shared by many users on a network.

5.2 List the display quality aspects you should consider when selecting a display device. (5)

- Resolution
- Response Time
- Brightness
- Dot Pitch
- Contrast Ratio

5.3 Give five (5) characteristics of a mobile printer. (5)

A mobile printer is a small lightweight, battery-powered printer that allows a mobile user to print from a laptop, smartphone, or other mobile device while travelling.

Mobile printers fit easily in a briefcase alongside a laptop.

Mobile printers mainly use ink-jet or thermal technology.

Many connect to a USB port.

Others have a built-in wireless port through which they communicate with the device.

5.4 List the uses of voice input. (5)

- Internet messaging that supports voice conversations,
- Chat rooms that support voice chats,
- Video calls,
- Video conferencing,
- VoIP and voice recognition

QUESTION 6 - STRUCTURED QUESTIONS (28 MARKS)

6.1 Briefly explain what is encryption, and what methods of encryption are common? Also draw a simple diagram to illustrate the encryption process. (10)

- Encryption ensures information protection, allowing only authorised parties to view it. This includes files stored on the computer or on a network, as well as data transferred over wireless networks and the internet.
- Encryption also provides authentication - the origin of a message can be verified.
- It ensures integrity, i.e. proof that the contents of a message have not been changed since it was sent.
- The sender of a message cannot deny sending the message.

- Data can be encrypted by using two main types of encryption: asymmetric encryption (also called public-key encryption) and symmetric encryption (also called private or secret key encryption).
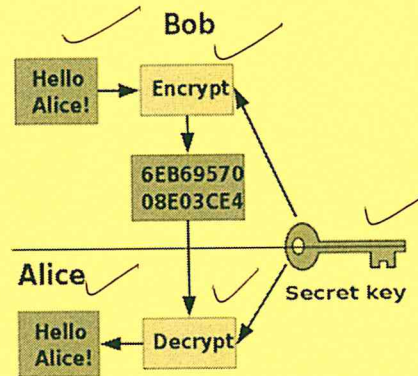
6.2 **Briefly list and explain the five (5) biometric devices used for authentication or Verification in any given company.** **(10)**

- **Face scanner** - face scanners identify a person by taking measurements of a person face. For example, the distance between the persons chin, eyes, nose, and mouth.
- **Hand scanner** - the palm of your hand is also unique to you. A biometric hand scanner will identify the person by the palm of their hand.
- **Finger scanner** - a biometric finger scanner identifies the person by their fingerprint. These can be a secure method of identifying a person.
- **Retina or iris scanner** - A biometric retina or iris scanner identifies a person by scanning the iris or retina of their eyes.
- **Voice scanner** - a voice analysis scanner will mathematically break down a person's voice to identify them.

6.3 **By means of a diagram, please indicate the detail and flow of the booting process.** **(6)**
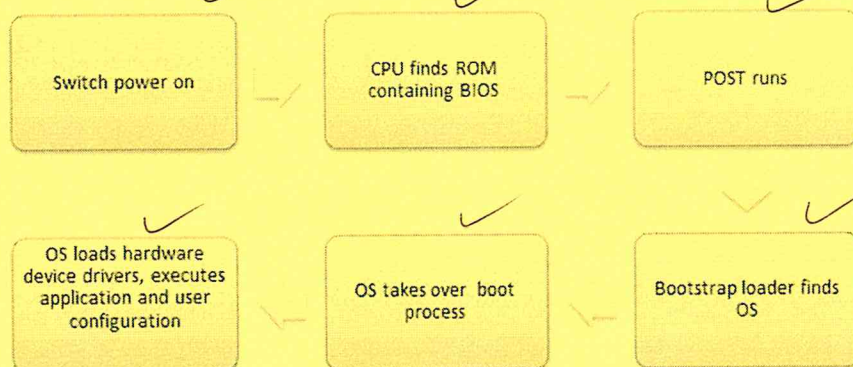
6.4 **Give two examples of how you can protect your computer from digital security risks.** **(2)**

- Install a firewall
- Install anti-virus software

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