**NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ADM NO: \_\_\_\_\_\_\_\_\_\_\_\_CLASS:\_\_\_\_\_\_\_\_\_\_**

**DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ SIGN: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**COMPUTER STUDIES**

**FORM FOUR**

**MARKING SCHEME**

**TERM 1, 2024**

**INSTRUCTIONS: (Answer all the questions) TIME: (1h 30min)**

1. List four network system that are not computer based networks 4mks

**Road networks, telephone networks, nervous system, and railway networks**

1. Define the term
2. computer network 2mks

**A computer network is a collection of computers connected together using transmission media for the purpose of** **communication and resource sharing.**

1. Network 2mks

**A network refers to a collection of connected entities, systems or objects that interact with each other.**

1. Communication channel 2mks

**Refers to any physical or wireless transmission medium through which data signals flow from source to destination.**

1. Define the term data communication. 4mks

**Date communication is the process of transmitting data from one location to another through a transmission media**

1. Differentiate between a baseband and broadband signal. 4mks

**Baseband refers to a digital that is generated and applied to the transmission medium directly without modulation** **while broadband transmission refers to a process where analog signal is sent over the transmission medium using a** **particular frequency.**

1. State four advantages of networking 4mks
2. **Sharing resources**
3. **remote communication**
4. **Reliable and error free**
5. **Distributed processing**
6. **Cost-effectiveness**
7. Give two disadvantages of networking 4mks

* **High initial cost**
* **Security and privacy threats**
* **Unethical behavior**
* **Over-reliance on networks.**

1. **Differentiate between a network server and a workstation.** 3mks

**A network serve is a computer dedicated to servicing requests from other computers on the internet while a workstation is a computer connected to a network on which users do their work**

1. Explain the concept of distributed processing in networking. 4mks

**Distributed processing is a configuration in which terminal with processing power are located in a wide geographical area.**

1. Why is a network more reliable stand-alone computers? 3mks

**If one of the computers breaks down information can still be accessed from the server using another computer on the network**

1. Explain the three most common types of computer? 3mks
2. **Local area network (LAN)**
3. **Metropolitan area network(MAN)**
4. **Wide area network(WAN)**
5. Differentiate between remote client and remote host. 4mks

**The computer mailing a remote request is called a remote client while the computer that is being accessed is called a remote host.**

1. Explain the term bandwidth. 3mks

**Bandwidth refers to the maximum amount of data that a transmission medium can carry at any one time.**

1. What is a “resource” in networking? 3mks

**A resource is anything that can be shared on the network. E.g. data, files, information**

1. Differentiate between half duplex and full transmissions. 4mks

**Half duplex refers to communication in both directions but one at a time while full duplex transmission refers to** **communication in both directions simultaneously.**