TOPIC 11 DATA COMMUNICATION AND NETWORKING

1)   (a)   Define the term data communication
   (b)   List and explain the elements of data communication

2)   (a)   Define the term data communication tools
   (b)   Describe the types of electronic data communication tools

3)   Giving examples distinguish between electronic data communication tools and manual data communication tools.

4)   (a)   Define the term data transmission media
   (b)   Differentiate between physical (bounded)/Guided transmission media and wireless (unbounded)/Unguided transmission media (c)   List any three examples of bounded media and three examples of   unguided media.

5)   Describe services that are offered by the following data communication tools
    (i)   E-mail
    (ii)   Skype
    (iii)   News groups
    (iv)   Instant messaging

6)   Explain the implications of using data communication services

7)   (a)   Define the term Computer network
   (b)   Explain the basic requirements for setting up a computer network

8)   (a)   Explain the implications of computer networks
   (b)   Identify and explain the different types of computer networks

9)   With illustrations name and explain two network models

10)   (a) Define the following terms as applied to data communication.
      i.   Packet switching
      ii.   Circuit switching
      iii. Data channel

    (b)   Mention two advantages of full duplex mode of data transfer over simplex mode of data transfer.

11) (a) List three advantages of fiber optic cabling (b) Outline two disadvantages of wireless communication

12) (a) Define the term Computer Communication.
    (b) State the difference between simplex and a full duplex channel

13) (a) What do the acronyms LAN and WAN stand for?
    (i) LAN:...
    (ii) WAN: ....
    (b) Give one advantage of having a LAN system in the school's administration office rather than standalone computers.

    Advantage:
    (c) The **Internet** is a typical WAN system. As a student, mention **use** that you make of the internet.

14) (a) As a concerned student of ICT explain any **one** bad practice that a student would get involved in while using the internet.
    (b). Briefly, explain the following data communication tools:
    (i). Blog.
    (ii). Instant messaging.

15). (a) Define communication devices. (b) Mention two communication devices.
    (c) Discuss the advantages of computer networking.

16). A company has decided to introduce an intranet and remove Internet access for its staff.
    (a) Describe two reasons why the company will not allow its staff internet access.
    (b) Apart from removing internet access, give three advantages to the company of using an intranet.

17). (a) Distinguish between asynchronous and Synchronous data transmission modes.
    (b). Write short notes on the following as applied in data transmission.
        i. Simplex transmission.
        ii. Half duplex.
        iii. Full duplex.

18). After connecting to the schools wireless LAN using his personal laptop, Mr.

Mutaasa complained about the slow speed at which his E-mail was opening: As an ICT student suggest five possible causes of the problem reported by Mr. Mutaasa

19). (a)   Define computer-mediated communication

  (b)   State three communication channel

20.   Explain five ways computer communication is done

   (a) State the following ICT networking terms.

   (i)   Bandwidth…………………………………………………………………….

   (ii)   Web Server……………………………………………………………………..

   (iii)   Client computer……………………………………………………………….

   (b) State two factors one should consider when selecting a network model

21.   (a) Distinguish between synchronous and asynchronous data communication modes

(b) Give *two* examples of data transmission media

(c) State *two* factors you would consider when choosing a data transmission   media.

22.   (a) Briefly show what you would use the following internet based services for:

      i) Internet relay chats

      ii)File transfer protocol

   (b) The internet is made-up of quite a number of services ranging from communication, entertainment and leisure, research, and money, finance and banking, to publishing. As an ICT person, and many more others; State any **three** internet based services for research

23.   (a) State **two** ways in which a student would use whatsup to support his/her learning.

(b) Give **one** clear difference between a blog and a wiki as electronic documents.

(c) State **two** reasons to justify limited internet usage in Uganda.