a)

i) Packet Switching and Circuit Switching

ii) DHCP and DNS

iii) MAC address table and IP address table

b) 3 factors that should be taken into consideration when choosing a type of transmission medium for computer network

Q2  
a) network protocol

* Set of rules that govern data communication within a network

b) explain how Internetwork protocol suite operates

c) explain 4 benefits of Extranets to a University

Offers Flexibility

Saves Time and Money

More secure – through encryption

Easy to maintain

Section B

Q3  
a) using illustrations explain x-tics of each & highlight advantages and disadvantages

1. Peer to Peer
2. Client/Server

Q4

1. Describe how “CSMA/CD” network protocol operates

CSMA/CD, a MAC process protocol, first senses for any transmissions from the other stations in the channel and starts transmitting only when the channel is clear to transmit. As soon as a station detects a collision, it stops transmission and sends a jam signal. It then waits for some time period before retransmitting

1. The Uni of Eldoret intends to improve performance of its LAN/ Discuss the specific areas to be addressed in order to achieve this objective.

Q5

A\_ Define the term Default route

**the route that takes effect when no other route is available for an IP destination address**

State and explain 4 parameters necessary to be configured for the computer to connect to the internet

Q6

1. Explain functions of the following networking devices clearly indicating the layer of the OSI model in which they operate

* Switch
* Router
* Repeater

Q7  
i) Describe 3 potential attacks originating from the internet that you will advise the University to be aware of

ii Describe the measures you would advise the University to take to ensure that their data/information are protected from the above-mentioned threats