



1.3.3 Network Hardware

1. An offices network uses multiple switches.

a) Explain the purpose of a network switch.

[3 marks]

- Joins computers/devices together on a LAN
- Receives packets/data
- Recipient's address is given in the packet header / uses the MAC address
- Send packets/data on
- ... out the port / to the specific device the packet is intended for

b) Describe other **three** different pieces of networking hardware in a client server network apart from the clients and servers themselves.

[6 marks]

- Router e.g.
 - Connect networks together
 - Assign IP address to devices
 - Examines data packets and forwards them
- Cable/ Ethernet e.g.
 - Carries digital data from one device/NIC to the next
 - Connects wired devices to the network
- Gateway e.g.
 - Connects different types of network
 - Translates protocols from one network to another
- Bridge e.g.
 - Connects different network segments
- Repeater
 - Receives a signal and retransmits it
- Network Interface Card // NIC e.g.
 - Gives each device a MAC address / unique ID
 - Allows a computer system to interface with a network
- Wireless Access Point // WAP e.g.
 - Allows wireless devices to communicate with each other
 - Sends and receives radio waves
 - Examines data packets and forwards them





- Switch e.g.
- Connects multiple wired devices to the network
- Receives data and forwards it to the intended recipient

