

## **Characterstics**

Advantages and disadvantages of networks

## **Topologies – STAR and MESH**

Draw diagram

2 x advantages / 2 x disadvantages

## **Network Hardware**

## **Packet switching:**

**Contents of a packet**

**What is packet switching?**

**Domain Name Server (DNS) – 6 steps to how it works**

## **Network revision**

**An IP address is (and give example):**

**A web browser is:**

**The role of a web browser is:**

URL: Copy exam question and mark scheme to explain

Explain the structure of this URL.

<https://www.eduqas.co.uk/qualifications/compsci>

- https is the protocol
- www.eduqas.co.uk is the domain name stored on a DNS
- /qualifications/ is the folder structure leading to where the web page is located
- compsci is the requested web page.

The Internet allows access to a wealth of resources and services, such as webpages and applications of the World Wide Web.

(a) (i) State the role of a web browser. [1]

.....

.....  
Award one mark for the following:  
.....  
.....  
.....

- The role of a web browser is to render HTML

- (ii) Explain the structure of this URL. [4]

`https://www.eduqas.co.uk/qualifications/compsci`

- .. Award one mark for each of the following up to a maximum of four marks: .....
- ..
- `https` is the protocol .....
  - `www.eduqas.co.uk` is the domain name stored on a DNS
  - `/qualifications/` is the folder structure leading to where the web page is located
  - `compsci` is the requested web page.

Domain names are used because IP addresses are difficult to remember.

Explain how a domain name is used to access a web site including the role of Domain Name System (DNS) servers. [6]

5 - 6 marks

### Indicative content

- a DNS server will contain a list of domain names
- a DNS server will contain a list of corresponding IP addresses
- a web site address is typed into the address bar of a browser
- the browser checks the local (cached) host file to check if it already holds the IP address
- the local (your domain) DNS server is queried for the IP address
- if the local DNS server does not hold the IP address then the query is passed to another DNS server at a higher level until the IP address is resolved
- the address is passed on to DNS servers lower in the hierarchy
- when the full address has been resolved, the IP address is then passed to your browser
- the browser then connects to the IP address of the server and downloads the web site.

The candidate has:

- shown strong understanding of the requirements of the question and a clear knowledge of the indicative content. Clear knowledge is defined as a response that provides five to six relevant detailed points from the indicative content ..
- shown a sustained line of reasoning which is coherent, relevant, substantiated and logically structured ..
- used appropriate terminology.

3 - 4 marks

The candidate has:

- shown some understanding of the requirements of the question and sound knowledge of the indicative content. Sound knowledge is defined as a response that provides three to four relevant detailed points from the indicative content
- shown a line of reasoning which is partially coherent, largely relevant, supported by some evidence and with some structure
- used mainly appropriate terminology.