Name: Class: Mark:

1. Complete the table below by ticking one column in each row to show whether the following statements are true or false. [4]

|  |  |  |
| --- | --- | --- |
|  | **True** | **False** |
| The Internet is part of the World Wide Web |  |  |
| Each household in the UK has a unique IP address |  |  |
| The IP address of a laptop will change as you travel to different places |  |  |
| Every networked device in the world has a unique MAC (Media Access Control) address |  |  |
| To use the Internet, you must be connected to a router, either by a network cable or a wireless connection |  |  |

2. (a) Explain with the aid of a diagram the concept of a **packet switching network**. [4]

(b) Name **two** items of information that each data packet will contain other than the original data that was to be sent. [2]

(c) Explain how MAC addresses are used in networks. [2]

3. (a) Define the meaning of a Wide Area Network (WAN). [1]

(b) Give an example of a WAN. [1]

4. A DNS (Domain Name System) translates domain names such as [www.bbc.co.uk](http://www.bbc.co.uk) into numerical IP addresses, such as 212.58.241.67.

(a) List **two** advantages of the Domain Name System [2]

(b) A user types the web address [www.bbc.co.uk](http://www.bbc.co.uk) into a web browser.

Describe how a DNS server is used to access this website. [4]

[Total 20 marks]