Name: Class: Mark:

A small business has employees that make use of desktop computers. They are moving to a new office and need to setup a network.

One item of hardware they will need is a router.

(a) State **one** other item of hardware that will be needed for each computer. [1]

(b) One purpose of the router is to assign IP addresses to each computer which connects to the network.

State **one** other purpose of the router. [1]

(c) Explain the need for IP address assignment. [2]

(d) The connection between the router and Internet breaks. Tick the appropriate box to indicate whether each statement is true or false. [3]

|  |  |  |
| --- | --- | --- |
|  | **True** | **False** |
| All computers will no longer be able to access the Internet. |  |  |
| Computers will no longer be able to send data to other computers in the office. |  |  |
| The router (DHCP server) will no longer be able to assign IP addresses to new computers that want to join the network. |  |  |

(e) One employee contacts technical support and states that their IP address is:

192.152.298.17

Give **one** reason why they have made a mistake with the IP address they have given. [1]

[Total 8 marks]