1. Mr Johnson is the network manager at a school. State 5 ways that using computers in a network environment can be advantageous for him.

    1 _____

    2 _____

    3 _____

    4 _____

    5 _____ [5]

2. Mr Johnson assigns each computer an IP address. There are 100 computers and students often also bring their own laptops that they can connect to the network using Wi-Fi. If a student accesses a website that is haram, he blocks the student using the IP address assigned to the student's computer. His deputy, Mr French argues that he should use MAC addresses rather than IP address to block students. Discuss why this would be correct or incorrect.

    _____

    _____ [2]

3. There are now so many students bringing laptops, Mr Johnson fears that they may run out of possible IP addresses to assign to new users. This is obviously not going to happen in a school. What are the differences between IPv4 and IPv6 addresses?

    _____

    _____ [2]

4. Mr Johnson likes the idea of using a peer-to-peer network and is considering switching the current network setup at school. Give 2 drawback to using a P2P network setup over a client server model.

    _____

    _____ [2]

5. Draw how a client server model network would look for Mr Johnson. The drawing must include 4 computers that uses the correct hardware to connect a server and a printer.

[3]

6. Teachers across the world use the website URL *codefez.github.io* to access amazing worksheets and posters for their students. How is the URL converted to an IP address?

_____

_____

_____ [3]

7. State the purpose of a router

_____

_____ [1]

8. Emil wants to run a LAN party to play Counter Strike at lunch times in a Computing lab. He will set up a small local area network. What is meant by a local area network (LAN)?

_____

_____ [2]

9. Some of the computers are not connected to the LAN. What hardware would the computers need to connect to the LAN?

_____

_____ [1]

10. The LAN party clan are trying to download the game from a website that does not seem secure. What protocol is used to ensure that downloads would be from a secure website?

_____ [1]

11. One of the members have found a file server that the game can be downloaded from. It's not from a website, however. What protocol can be used to download files from the web?

_____ [1]