

GCSE Computing

Revision Pack

SIX

Networks

Name:

Attempt One %

Attempt Two %

Attempt Three %

Areas of Strength

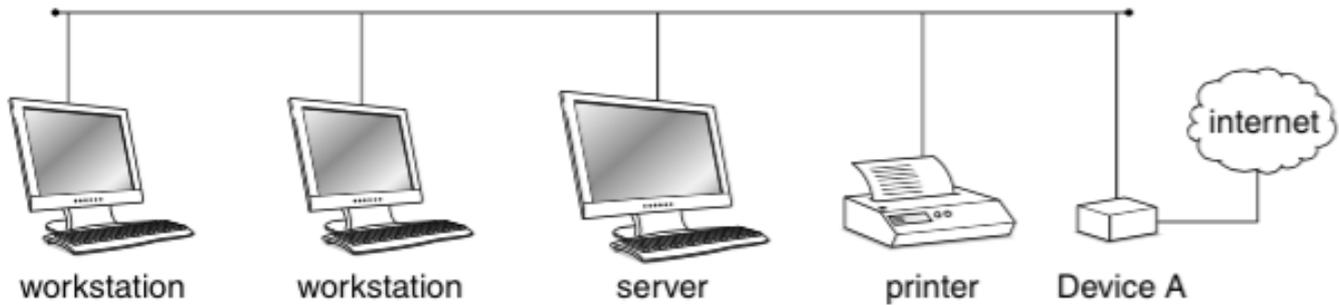
Areas for Development

1. A small business has three stand-alone computers, a printer and an Internet connection in an office. State **two** advantages of connecting the computers to create a local area network. (2 marks)
2. Describe, using a diagram, how the computers can be connected to each other using a bus topology, stating what hardware will be needed. (6 marks)
3. A large company with 200 employees uses a local area network (LAN) which includes all the computers in its head office. Describe the security measures and network policies which can be used to safeguard the security and privacy of the company's data on the network. (6 marks)
4. A city has many libraries. Each library has several computers. All the computers in a library are connected to each other through a local area network (LAN) and the libraries are connected through a wide area network (WAN). In the table below, tick **one** box in each row to show whether the statements are true for the LAN only or for both LAN and WAN. (4 marks)

	LAN only	Both LAN and WAN
This can be used to check the books in another library.		
This can be used to send messages between the libraries.		
This will include a printer where users can print results of a search.		
Protocols are needed to allow the computers to communicate.		

5. A classroom in a primary school has 6 stand-alone computers. The school decides to connect them to form a LAN. What is a LAN? (1 mark)
6. State **two** advantages of connecting the computers into a LAN.(2 marks)
7. The school decides to use the star topology to create the LAN.Describe what is meant by a star topology. You may use a diagram. (2 marks)
8. Explain, with reasons, what additional hardware will be required to connect the computers into a LAN (4 marks)

The following diagram shows how the computers in Mr Singh's office are connected to each other to form a LAN.



9. State the correct name for this network topology. (1 mark)

10. State the name of the Device A which connects the server to the internet. (1 mark)

11. Give **three** functions of the server in this network. (3 marks)

12. In his home, Mr Singh has a peer-to-peer network. Explain what is meant by a peer-to-peer network. (2 marks)

A school has all of its computers in a local area network (LAN).

13. State **two** benefits of a LAN. (2 marks)

14. Explain **two** measures which the school will need to take to ensure the security of the network. (4 marks)

Zoe is organising a LAN-party. Her friends will each bring a computer to the party so that they can play games against each other.

15. Describe what is meant by a Local Area Network (LAN). (2 marks)

16. Zoe plans to use the star topology in the LAN. Describe the star topology. You may use a diagram. (2 marks)

17. State **two other** topologies that can be used when creating a LAN. (2 marks)

A bank uses a local area network to connect all the computers in its head office.

18. State **two** ways the local area network can be used to monitor the work of employees. (2 marks)

19. Computers in the network can be identified using both IP addresses and MAC addresses. Describe **two** differences between IP addresses and MAC addresses. (4 marks)

20. The bank network uses failover. Describe what is meant by failover and justify the need for failover in the network. (4 marks)