

LAVINGTON GIRLS SECONDARY SCHOOL

COMPUTER STUDIES FORM 4 APRIL HOLIDAY ASSIGNMENT

CAREER OPPORTUNITIES IN ICT

1. List two career opportunities directly associated with computer networking. (2mks)

2. A firm operates an order system that coordinates orders, raw materials and inventory across its three factories. Currently the orders are processed manually at each factory and communicated to the others over the phone. The management intends to computerize their operations. State the first two computer professionals who will be required and their roles. (4mks)

3. Arrange the following job titles in the order of their seniority.
Database administrator, ICT manager, system analyst (1mk)

4. Distinguish between a system administrator and a database administrator as used in computers (2mks)

5. a) An employee in a business company is charged with the responsibility of putting the company advertisements on the Internet.
 - i) State the professional title of the employee. (1mk)

 - ii) Give an example of software used by this employee to carry out the above task. (1mk)

NETWORKING AND DATA COMMUNICATION

1. A computer user is unable to retrieve a file stored in a server in an organization. State three reasons why the user would need to contact the network administrator. (3mks)
2. a). state the role of each of the following data communication devices. (2mks)
 - i. Repeater
 - ii. Router

b). Figure 3 shows a network based on the bus topology.

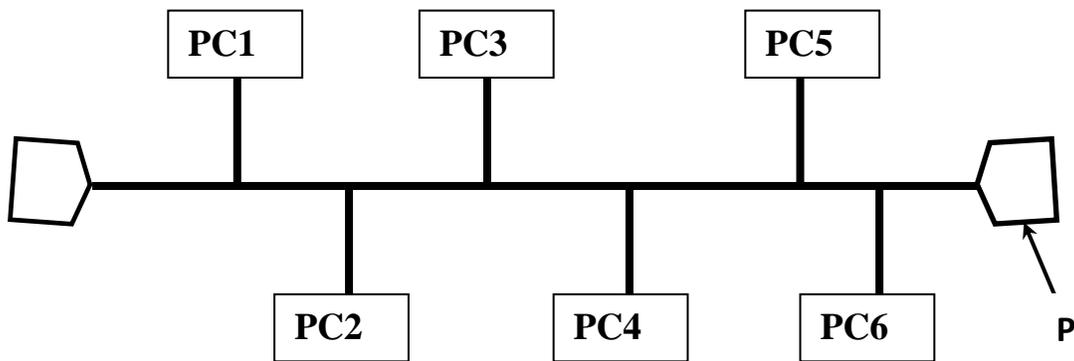


Figure 3

- i. Identify the component labeled P. (1mk)
 - ii. State the function of the component labeled P. (2mks)
- C)i) a company has three branches A,B and C where A is the headquarter. The local area network (LAN) at A is directly connected to the LAN at B and directly to the LAN at C. Explain two benefits of having the LAN at B also directly connected to the LAN at C. (4mks)
- ii). State three ways in which a company can protect its network from hackers. (3mks)

3. The topology below is formed by combining two types of topologies.

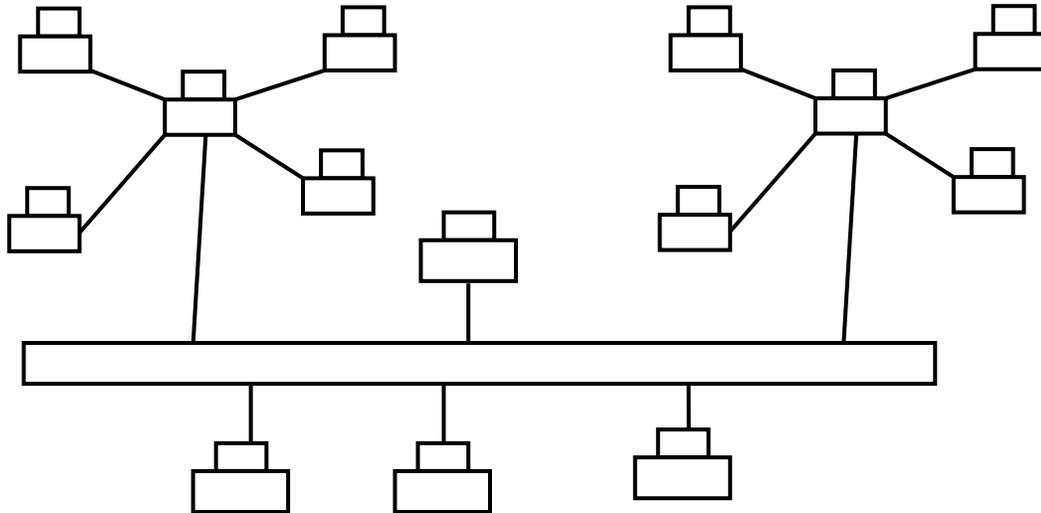


Figure 2

a). Give one name for the combined topology in **figure 2**. (1mk)

b). Name the two topologies forming the combined topology in **figure 2** (2mks)

4. a). What is meant by Data communication equipment? (1mk)

b). List six examples of data communication equipment (3mks)

5.a). state three techniques used by a network administrator to detect and prevent computer crimes (3mks)

b). A company in town wishes to link its offices together. The linking may be through wireless or fibre optic network media

i). state two benefits that the company would gain from the use of metropolitan area network (MAN) (2mks)

ii). State three advantages of using wireless over fibre optic network media (3mks)

iii). State three limitations of wireless communication (2mks)

iv). State two transmission media used in wireless transmission (2mks)

c). state three ways in which computer virus infection can be prevented other than through restricting the usage of removable storage media (3mks)