

i. One characteristic of a LAN is that they are set up over a small geographical area.

[1]

[4]

[2]

Threat	Anti-malware	Penetration testing	Encryption	Firewall
Spyware				
Brute-force attack				
Data interception				
SQL injection				

[4]

(b). Name **and** describe **one** threat to a computer system that is **not** Spyware, Brute Force attack, Data Interception or SQL Injection.

Threat _____

Description _____

-----[3]

3. A library does not use encryption when data is transmitted through its network.

Give **two** reasons why the library should use encryption.

1 _____

2 _____

[2]

4(a). A software development company wants to protect their computer systems and data from unauthorised access.

Identify **two** methods of physical security that the company could use to protect their computer systems.

1 _____

2 _____

[2]

(b). Identify **and** describe **two** software-based security methods that a company can use to protect their computer systems and data.

Method 1 _____

Description _____

Method 2

Description

[6]

5. Amir has a home network that includes two laptop computers, four mobile phones, and two televisions. Amir wants to protect the computers on his network from threats such as unauthorised access. The following incomplete table contains a form of attack, description and method of preventing each attack. Complete the table by writing the missing Forms of attack, Descriptions and Methods of prevention.

Form of attack	Description of attack	Method of prevention
	A program attempting all possible password combinations	
Data interception		
		Anti-virus

[6]

6(a). A hospital stores patients’ details on its computer network. The hospital is concerned about the security of its patients’ details.

Staff already use strong passwords to protect systems. Explain, with reference to system security, **three** other ways that the hospital could protect the network system.

1

2

3

[6]

(b). Identify **three** errors that the hospital staff could make that may endanger the security of the network. Outline a procedure that could be put in place to prevent each error.

Error 1

Procedure 1

Error 2

Procedure 2

Error 3

Procedure 3

[6]**END OF QUESTION PAPER**