Name: Class:

Task 1

Malware includes viruses, worms and Trojans. Anti-malware, anti-virus and anti-spyware software help to prevent viruses from infecting computers.

(a) Describe how anti-virus software works.

(b) It is also possible to perform a full scan of a computer to check every file to see if it contains a virus.

Describe what happens when an anti-virus or anti-malware developer detects or is sent a new virus or malware.

Task 2

1. Fill in the blanks with the words beneath the text.

Firewalls are available as a special hardware device or as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. A firewall will block \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_of information that are from certain malicious IP addresses. It can also block packets that are for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_that are not used. When packets are blocked from entering a computer or network they are said to be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. A firewall can look at the data inside each packet of data. This is known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Computers that are protected by the firewall are part of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
| **Dropped** | **Packet inspection** | **Software** |
| **Packets** | **Ports** | **Trusted network** |

2. User access levels allow different users the ability to access different parts of a system.

For files, certain users may be given read, write or execute permissions.

Explain what each of these permissions allow a user or group of users to do with a file.

Read:

Write:

Execute:

Task 3

There are a number of biometric methods that can be used to identify people. In the table below, tick whether the security method is a biometric or non-biometric method.

The first row has been completed for you.

|  |  |  |
| --- | --- | --- |
| **Security method** | **Biometric method** | **Non-biometric method** |
| Fingerprint |  |  |
| Password |  |  |
| Palm vein |  |  |
| Email authentication |  |  |
| Voice |  |  |
| PIN entry |  |  |
| Retinal scan |  |  |
| Ear |  |  |
| Magnetic swipe card |  |  |
| DNA |  |  |

Task 4

There are many ways that companies and people can protect their computer systems and data.

Look at the table below and match the methods on the left with their meanings on the right.

|  |  |  |
| --- | --- | --- |
| **Method of protecting computer systems and data** |  | **Meaning** |
| Two-step verification |  | A string of characters used to gain access to a computer system. |
| Anti-malware software | Asking for a user to verify |
| Passwords | Allowing different users different permissions to files, programs or services. |
| Privacy settings | Prevents viruses, spyware, Trojans, worms and other malicious software. |
| SSL | Turns off or blocks certain devices or features, such as a microphone, to prevent personal data loss. |
| Firewalls | Prevents certain packets of data from entering the network. |
| Access levels | A method of encrypting data between website and user |