MODULE G SECURITY · G1

# Malware: viruses, worms, Trojan horses, spyware, adware and ransomware

Original practice questions · 21 marks · ~25 minutes · Cambridge 0478 syllabus 5.3.1

Name _____ Date _____

**Instructions.** Answer all questions in the spaces provided. The marks for each part are shown in brackets [ ]. The total for this worksheet is **21 marks**.

## 1

**Total: 6 marks**

Each description in the table matches a different type of malware.

**(a)** Complete the table by writing the type of malware that matches each description. **[6]**

| Description | Type of malware |
|---|---|
| Displays unwanted adverts on the screen and may redirect web searches to other websites | |
| A standalone program that copies itself to other computers across a network, without needing a host file or any action by the user | |
| Encrypts the user's files and demands a payment before they can be decrypted | |
| Looks like genuine, useful software, but contains hidden harmful code that runs once it is installed | |
| Attaches itself to a file or program, and copies itself when that file or program is run | |
| Secretly monitors what the user does, such as the keys pressed, and sends this data to a third party | |

**2** **Total: 4 marks**

A logistics company has a network of 200 computers. A worm gets onto one of the computers.

**(a)** Describe how the worm spreads to other computers on the company's network. **[2]**

**(b)** Give **two** effects the worm could have on the company's network. **[2]**

1

2

**3** **Total: 4 marks**

An engineering firm's computer system is attacked with ransomware.

**(a)** Describe the processes involved in a ransomware attack on the firm's computer system. **[3]**

**(b)** State the aim of carrying out a ransomware attack. **[1]**

**4** Total: 4 marks

Spyware has been installed, without the user knowing, on a computer used by a travel agent.

**(a)** Explain how the spyware could be used to gain access to the travel agent's online accounts. **[2]**

**(b)** The same computer is also infected with adware. Describe **two** effects the adware could have on the computer. **[2]**

1

2

**5** Total: 3 marks

**(a)** Tick (✓) **one** box in each row to show whether each statement is true or false. **[3]**

| Statement | True | False |
|---|---|---|
| A virus needs a host file or program to attach itself to | | |
| A Trojan horse copies itself to other computers on its own | | |
| Some adware also contains spyware | | |

**Total for this worksheet: 21 marks**