MODULE G SECURITY · G5

Hacking and data interception

Original practice questions · 21 marks · ~25 minutes · Cambridge 0478 syllabus 5.3.1, 5.3.2, 2.3.1

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: 4 marks

Tick (✓) **one** box in each row to show whether each statement applies to data interception, hacking or both. **[4]**

Statement	Data interception	Hacking	Both
Data is captured while it is being transmitted across a network			
A person gains access to a computer system without the owner's permission			
One aim can be to steal personal data such as passwords			
The attacker can delete or change files stored on the computer system			

2 **Total: 8 marks**

A hotel provides a free wireless network for its guests. A guest uses a laptop on this network to log in to a travel booking website and enter their payment details.

(a) Describe the process of data interception on the hotel's wireless network. **[4]**

(b) Give **two** aims a person might have for intercepting the guest's data. **[2]**

1

2

(c) The booking website encrypts the data sent between the guest's laptop and the website. **[2]**
The guest says: "Because my data is encrypted, it cannot be intercepted."
Explain why the guest is wrong.

3 **Total: 9 marks**

An architecture firm stores its building designs and client records on a file server. Staff can connect to the server from home over the internet.

(a) Describe what is meant by hacking. **[2]**

(b) Give **three** aims a hacker might have once they have access to the firm's file server. **[3]**

1

2

3

(c) Explain how **two** different solutions could help keep the data on the firm's file server safe from hacking. **[4]**

Solution 1

Solution 2

Total for this worksheet: 21 marks