MODULE H SOFTWARE · H2

What an operating system does

Original practice questions · 20 marks · ~25 minutes · Cambridge 0478 syllabus 4.1.2

Name _____ Date _____

Instructions. Answer all questions in the spaces provided. The marks for each part are shown in brackets [ ]. Do not give brand names of software. The total for this worksheet is **20 marks**.

1

Total: 2 marks

A car-hire company has a computer in its office. Staff use it to take bookings, print hire agreements and store customer records. The computer has an operating system.

(a) Describe the role of an operating system. **[2]**

2

Total: 3 marks

The company connects a new printer to the computer to print hire agreements.

(a) Explain why the operating system needs a driver for the new printer. **[2]**

(b) State **one** other task the operating system carries out when it manages the printer. **[1]**

3 **Total: 6 marks**

The table describes six things the operating system does on the office computer.

(a) Complete the table by writing the function of the operating system that is being carried out in each description. Choose from the list. Not every function in the list is used. **[6]**

handling interrupts	managing files	managing memory
managing multitasking	managing peripherals and drivers	managing user accounts
providing a platform for running applications	providing an interface	providing system security

Description	Function of the operating system
A manager creates an account for a new member of staff and removes the account of a member of staff who has left.	
A new barcode scanner is plugged in. The operating system installs the software it needs to communicate with the scanner.	
When the booking application is closed, the operating system frees the space in RAM that it was using so another application can use it.	
A clerk renames a customer's folder and moves it into a folder called "Finished hires".	
A signal is sent to the processor to show that a key has been pressed. The current task is paused briefly while the key press is dealt with.	
The processor's time is shared between the booking application and a web browser, so both appear to run at the same time.	

4 **Total: 4 marks**

The computer stores a file of customers' driving licence details. Only the company's managers should be able to open this file.

(a) Explain how the operating system can make sure that only the managers can open this file. **[3]**

(b) Apart from user accounts and passwords, state **one** other way the operating system can provide system security. **[1]**

5 **Total: 5 marks**

A clerk has three applications open at the same time: the booking application, a spreadsheet and a web browser.

(a) Describe how the operating system manages memory and manages multitasking so that the clerk can use all three applications. **[5]**

Total for this worksheet: 20 marks