MODULE B MEMORY AND STORAGE · B1

Primary storage, RAM and ROM

Original practice questions · ~25 minutes · 20 marks · OCR J277 spec 1.2.1

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 **20 marks**.

1

Total: 3 marks

A hotel has a self check-in terminal in its lobby. A guest types their booking reference on a touch screen, the terminal shows their booking and then prints a room key card. The terminal has RAM and ROM.

(a) State what is meant by primary storage. **[1]**

(b) Explain why the check-in terminal needs primary storage. **[2]**

2

Total: 4 marks

Tick (✓) **one** box in each row to show whether each statement describes RAM, ROM or both. **[4]**

Statement	RAM	ROM	Both
Its contents are lost when the power is switched off.			
It holds the start-up (boot) instructions.			
It is directly accessed by the CPU.			
The CPU can write new data to it while a program runs.			

3 **Total: 4 marks**

A guest is checking in at the terminal. Their booking is shown on the screen.

(a) State **two** things that will be stored in the terminal's RAM at this moment. **[2]**

1

2

(b) State what is stored in the terminal's ROM **and** give one reason why it is stored in ROM. **[2]**

What is stored

Reason

4 **Total: 2 marks**

Give **two** differences between RAM and ROM. **[2]**

1

2

5 **Total: 3 marks**

The terminal's CPU also has cache.

(a) Describe the purpose of cache. **[2]**

(b) State why cache is described as primary storage. **[1]**

6 **Total: 4 marks**

While a guest is part-way through checking in, the lobby has a power cut. A few minutes later the power comes back on.

Explain what happens to the contents of the terminal's RAM and ROM during the power cut, and how the terminal starts up again when the power returns. **[4]**

Total for this worksheet: 20 marks