

1.1 PROCESSORS, INPUT/OUTPUT AND STORAGE · 1.1.3

Storage, RAM, ROM & virtual storage

Original practice questions · 34 marks · about 45 minutes · spec 1.1.3(b)(c)(d)

Instructions. Answer all questions. The number of marks is shown in brackets []. Quality of written communication is assessed in the extended-response question.

1 Total: 4 marks

This question is about storage and memory.

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

(b) State **two** examples of optical storage media. [2]

(c) State whether RAM is volatile or non-volatile. [1]

2 Total: 6 marks

This question is about how storage devices work.

(a) Describe how a magnetic hard disk drive stores data. [3]

(b) Describe how data is read from an optical disk. [3]

3

Total: 7 marks

This question is about primary memory.

(a) Explain the difference between RAM and ROM, including how each is used in a computer. [4]

(b) Explain why adding more RAM can improve the performance of a computer. [3]

4

Total: 4 marks

A manufacturer fits solid-state (flash) storage rather than a magnetic hard drive in its laptops.

Explain **two** reasons why solid-state storage is more suitable than a magnetic hard drive for a laptop. [4]

5

Total: 4 marks

This question is about virtual storage.

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

(b) Explain why virtual storage is well-suited to storing backups. [2]
