

Name:

Class Teacher:

Date:



OCR J276

GCSE Computer Science




REVISION BOOKLET

1.2 MEMORY

Content in J276 GCSE Computer Science:

- 1.1 Systems Architecture
- 1.2 Memory
- 1.3 Storage
- 1.4 Wireless and Wired Networks
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- 1.6 System Security
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- 2.1 Algorithms
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- 2.4 Computational Logic
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- 2.6 Data Representation

1.2 MEMORY

TOPIC			
The difference between RAM and ROM			
The purpose of ROM in a computer system			
The purpose of RAM in a computer system			
The need for virtual memory			
Flash memory			

1.2 MEMORY

THE DIFFERENCE BETWEEN RAM AND ROM

THE PURPOSE OF ROM IN A COMPUTER SYSTEM

THE PURPOSE OF RAM IN A COMPUTER SYSTEM

THE NEED FOR VIRTUAL MEMORY

FLASH MEMORY

EXAM QUESTIONS

QUESTION 1

Ann wants to purchase a new computer and is looking at two models. The specification of the CPU in each computer is shown below.

Fig. 1

Computer 1	Computer 2
Clock Speed: 1 GHz	Clock Speed: 1.4 GHz
Cache size: 2 MB	Cache size: 2 MB
Number of Cores: 4	Number of Cores: 2

Identify **two** internal components that are now shown above, which could improve the performance of the computers.

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[2]

QUESTION 2

Gareth has a satellite navigation system (Sat Nav) in his car that uses RAM and ROM. Below are listed some characteristics of computer memory. Tick **one** box in each row to show whether each of the statements is **true** for the RAM or ROM in Gareth's Sat Nav.

Fig. 2

	RAM	ROM
Stores the boot up sequence of the Sat Nav.		
The contents are lost when the Sat Nav is turned off.		
Holds copies of open maps and routes.		

QUESTION 3

Bob's computer has 512 kilobytes of ROM and 8 gigabytes of RAM. Describe the purpose of the ROM in Bob's computer.

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[2]

Describe the purpose of the RAM in Bob's computer.

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[2]

State **one** difference between ROM and RAM, other than the size and the purpose.

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[1]

QUESTION 4

A computer has 1024 megabytes of RAM. State **two** items that will be stored in the RAM.

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[2]

A computer sometimes uses virtual memory. Describe what is meant by virtual memory and state why it is needed.

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[3]

QUESTION 5

Dipesh is thinking of buying a tablet computer to replace his old desktop computer. Describe how the CPU and RAM work together to enable the tablet computer to operate.

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[3]

The tablet computer also uses cache memory. Describe the purpose of cache memory.

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[2]

Describe how the advances in memory technology have allowed significant improvement in the performance of devices such as tablet computers. The quality of your written communication will be assessed in your answer.

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