



YEAR: MAY/JUNE 2015

Q 1 Five storage devices are described in the table below.

In column 2, name the storage device being described.

In columns 3, 4, or 5, tick (✓) to show the appropriate category of storage.

1	2	3	4	5
Description of storage device	Name of storage device	Category of storage		
		Primary	Secondary	Off-line
optical media which use one spiral track; red lasers are used to read and write data on the media surface; makes use of dual-layering technology to increase the storage capacity				
non-volatile memory chip; contents of the chip cannot be altered; it is often used to store the start up routines in a computer (e.g. the BIOS)				
optical media which use concentric tracks to store the data; this allows read and write operations to be carried out at the same time				
non-volatile memory device which uses NAND flash memories (which consist of millions of transistors wired in series on single circuit boards)				
optical media which use blue laser technology to read and write data on the media surface; it uses a single 1.1 mm polycarbonate disc				



YEAR: MAY/JUNE 2016

Q 2 Four examples of optical storage media are:

- DVD-RW
- DVD-RAM
- CD-ROM
- Blu-ray disc

The table below shows four features of optical storage media.

Tick (✓) the appropriate boxes in the table to indicate which of the features apply to each example of optical storage media.

	Single track	Many concentric tracks	Blue laser used to read/write data	Red laser used to read/write data
DVD-RW				
DVD-RAM				
CD-ROM				
Blu-ray disc				

[4]

Q 3 Solid state drives (SSD) are replacing hard disc drives (HDD) in some computers.

(i) Give **three** reasons why this is happening.

- 1
- 2
- 3

[3]

Q 4 Explain why many web servers still use hard disc drive (HDD) technology.

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.....
.....
.....[2]



Nigel wants to send a large text file electronically to Mashuda.

(a) Describe how the size of the text file can be reduced.

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.....
.....
.....
.....
.....[3]





Q 5 There are **six** descriptions in the table below.

Complete the table below by writing the correct storage device or media in the box next to each description.

Description	Storage device or media
Non-volatile memory that can only be read from and not written to.	
Optical storage media that allows very high storage capacity by using blue/violet laser technology.	
Volatile memory that stores data, programs and the parts of the operating system that are currently in use.	
Optical storage media that uses a single spiral track and uses dual layer technology, allowing high data storage capacity.	
Device that stores data by controlling the movement of electrons within a microchip; there are no moving parts.	
Optical storage media that uses concentric tracks allowing writing and reading to take place at the same time.	



OCT/NOV 2016

Q 6 Identify whether the **four** statements about file compression are correct by writing TRUE or FALSE in the following table.

Statement	TRUE or FALSE
MIDI files store the actual music notes in a compressed format	
JPEG files are examples of lossless file compression	
MP3 files are, on average, 90% smaller than the music files stored on a CD	
MP4 files are examples of lossy file compression	



[4]

MAY/JUNE 2017

Q 7 Complete the paragraph by choosing **six** correct terms from the list.

- Optical
- On-line
- RAM
- HDD
- Primary
- SSD
- Secondary
- ROM
- Off-line



A computer has two different types of memory. memory is not directly accessed by the CPU, but it allows a user to store data that can easily be accessed by applications. Two examples of this type of memory are and The second type of memory is memory. This memory is directly accessed by the CPU. It allows the processor to access data and instructions that are stored in this memory. Two examples of this memory are and

[6]



MAY/JUNE 2017

Q 8 Two types of compression are lossy and lossless.

Choose the most suitable type of compression for the following and explain your choice.

(i) Downloading the code for a computer program:

Type of compression

Explanation

.....

(ii) Streaming a video file:

Type of compression

Explanation

.....
.....
.....



[3]

Q 9 Give **two** examples of primary, secondary and off-line storage.

Primary

Example 1

Example 2

Secondary

Example 1

Example 2

Off-line

Example 1

Example 2



[6]