Summative assessment – Answers

## Memory and storage

Q1. Which **two** of the following apply to Read Only Memory (ROM)?

* Volatile
* Stores boot sequence
* Read and write
* Non-volatile
* Stores data and instructions during processing

Q2. Whichof the following statements describes a method of storing data on an optical disc?

1. Data is stored on the platters as a series of magnetised dots, which can be one of two states — magnetised or not-magnetised.
2. Data is stored in a grid of cells — each cell has a floating gate transistor that allows an electrical charge to be trapped.
3. **Data is stored in the form of pits and lands burned into the surface by a laser.**

Q3.Which type of RAIDsystem uses a minimum of four disks with blocks which are striped and mirrored?

1. RAID 1
2. RAID 5
3. **RAID 10**

Q4. Which is the correct definition of the term ‘striping’in RAID systems?

1. **The process of breaking data into segments and then spreading it across drives.**
2. The process of adding extra data that can be used to detect errors.
3. The time taken to read data from storage.
4. The time taken to write data to storage.

A logo with blue dots

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Q5. Explain **one** difference between a Network Attached Storage (NAS) and a Storage Area Network (SAN).

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| Your answer may include one of these:  A NAS is typically connected using a standard Ethernet connection whereas a SAN uses fibre-optic cabling. This means that a SAN is faster but will cost more to set up.  A NAS has a single point of failure whereas a SAN is more fault-tolerant.  A SAN stores data at the block level whereas a NAS deals with files.  SAN typically appears as a disk whereas NAS appears as a file server.    A SAN can be scaled up by adding more storage controllers whereas a NAS is not easily  scalable. |