Exercise 1: Name two components of a computer system that are found inside the system unit (i.e. inside the case).

Motherboard, power supply, CPU, expansion card, fan, optical drive, HDD, RAM

Exercise 2: What component is the CPU plugged in to?

Motherboard

Exercise 3: What is the unit of measurement typically used to specify the speed of the CPU?

Hz, OPS

Exercise 4: If a new computer took 4 minutes to perform a complex calculation today, how long would we estimate (using Moore’s Law) a new computer would take to complete the calculation in 3 years time?

4 minutes - Today
4/2 = 2 minutes in 1.5 years
2/2 = 1 minute in 3 years
Exercise 5: What is the unit of measurement typically used to specify the size of the RAM?

Bytes

Exercise 6: Explain the difference between primary memory and secondary storage.

Primary memory (e.g. RAM) is the fastest memory in the computer, but it only holds information for a short period of time while the computer is running. The data from primary memory tends to disappear after the computer is turned off - volatile.

Secondary storage (also known as external memory or auxiliary storage), differs from primary storage in that it is not directly accessible by the CPU. The computer usually uses its input/output channels to access secondary storage and transfers the desired data using intermediate area in primary memory/storage. Secondary storage does not lose the data when the device is powered down—it is non-volatile.

Exercise 7: What does a RAID do?

RAID (redundant array of independent disks) is a data storage virtualization technology that combines multiple physical disk drive components into a single logical unit for the purposes of data redundancy, performance improvement, or both

Exercise 8: Give two examples of input devices and two examples of output devices

Input: Mouse, Keyboard, Microphone, touch screen
Output: printer, speaker, monitor
NB: not complete list

Exercise 9: What is a peripheral device?

A peripheral device is generally defined as any auxiliary device such as a computer mouse or keyboard that connects to and works with the computer in some way.

Examples of peripherals are image scanners, tape drives, microphones, loudspeakers, webcams, and digital cameras.