



1.1.3 Input, Output & Storage

- 1 A software company is producing software that allows users with severe mobility issues to input data into a computer.

The software flashes up letters on the screen one at a time. The user sends a signal to the computer when the letter they want appears on the screen.

- (a) State the name of an input device and describe how it could be used by a user with very limited mobility in their hands and arms to send a signal to the computer.

[2 marks]

- 2 A company sells digital photo frames which can also play video clips. Due to the limited storage on the device the videos are stored on the company's servers (i.e. in the cloud) and streamed when needed.

- (a) Give **one** disadvantage to the user of using cloud storage for their photos.

[1 mark]

The company allows users to connect a local storage device to the photo frame to increase storage capacity.

- (b) State the name of **one** device that might be connected to the photo frame to increase storage capacity.

[1 mark]

- 3 Mobile Treasure Hunt is a game played on a mobile phone. The game shows the user's position on a map of their local area. Treasure randomly appears on the map and users must move to the appropriate area to collect the treasure before it disappears.

- (a) State the name of a sensor or input device the phone might use when playing Mobile Treasure Hunt and explain why it might be used.

[2 marks]





- 4 Traditionally films have been distributed on optical media such as Blu-Ray.
- (a) Giving an example other than Blu-Ray, describe what is meant by the term 'optical media'.
[2 marks]
- (b) Give **one** advantage of films being distributed using optical media.
[2 marks]
- 5 To prove parcels have not been damaged in transit, the delivery drivers use a digital camera to take a photograph of them when they arrive at their destination. The digital camera uses flash memory.
Describe **one** advantage of the digital camera using flash storage rather than magnetic.
[2 marks]
- 6 A company uses secondary storage in its server, client machines and for backup purposes. For each of these, discuss whether magnetic storage or solid state storage would be most suitable, considering the advantages and disadvantages of both.
[9 marks]
- 7 Explain the difference between RAM and ROM, including how these are used by the computer system.
[4 marks]
- 8 Most printers have their own onboard RAM. State what the printer's RAM is used for.
[1 mark]
- 9 A digital photo frame has an embedded operating system. Give **two** reasons why this operating system may be stored in ROM.
[2 marks]





10 Describe how virtual memory allows a user to run programs when physical memory is full.

[2 marks]

