

Name: \_\_\_\_\_

Grade: \_\_\_\_\_

/

### Technical Implementation (Hardware Requirements)

Answer the questions below in the spaces provided.

1. Jonathan is the manager of a local band. He is developing a website to promote the band and their music. To do this, he is using his desktop computer which does not have a touchscreen monitor.
  - a) He wants to record a sound clip of the band performing their latest song. State one input device he would need to do this. (1)  
\_\_\_\_\_
  - b) The band want to record a high definition video message welcoming their fans to the website. State an input device that Jonathan would need for this purpose (1)  
\_\_\_\_\_
  - c) Jonathan sent a copy of the completed website to the record company for their final approval before it is uploaded to the world wide web. State one output device that the record company would need in order to view these files. (1)  
\_\_\_\_\_
  - d) Jonathan has noticed a spelling mistake on the website. State one input device he could use to correct this error. (1)  
\_\_\_\_\_
2. Katy is performing a stand-up comedy show at her local theatre. She needs to print a large amount of leaflets to publicise her performance, but does not have much time to do so.
  - a) Katy has access to both a laser printer and an inkjet printer. State which one she should use to print her leaflets. (1)  
\_\_\_\_\_
  - b) State two reasons why she would choose this printer. (2)  
\_\_\_\_\_  
\_\_\_\_\_
3. The bootstrap loader is a small computer program which begins the start-up sequence of a computer, including loading the main operating system which the user sees on screen. Explain why would this be stored in ROM and not in RAM? (1)  
\_\_\_\_\_

4. Examine the following computer systems

<p><b>System A</b></p> <p>2.6 GHz Processor</p> <p>4 Gb RAM</p> <p>750Gb Hard Drive</p> <p>DVD Writer</p> <p>21.5" LED Monitor</p>
--

<p><b>System B</b></p> <p>3.2 MHz Processor</p> <p>6 Gb RAM</p> <p>1Tb Hard Drive</p> <p>DVD Writer</p> <p>22.5" LED Monitor</p>
--

a) State which of these systems has the fastest processor. (1)

---

b) Explain why this is the case. (1)

---

5. Jordan works in a shop selling different types of computer system. For each of the following customers, state what type of computer system Jordan should recommend and explain why.

a) A teenager wants a reasonably cheap computer system. He doesn't need a lot of processing power or backing storage, as he only wants to use it for playing games, using Facebook and chatting with his friends on Skype. He does want the screen to be reasonably large though. (2)

---



---

b) A university student is looking for a computer system which he can transport between his home and his university. He plans to use the device to type up his notes and to play games but dislikes using a touch screen. (2)

---



---

c) A businessman wants a powerful computer which he can use to work from home. It must have a fast processor and a fairly large amount of storage and memory. He does not need to move the computer (2)

---



---

6. Scientists often use supercomputers to perform complex calculations or simulations. Explain why they would use a supercomputer for this purpose. (1)

---