**Part A**

**I**

**A**

**B**

**C**

**D**

**E**

**F**

**G**

**Objective** : Name and decribe each component



**H**

|  |  |  |
| --- | --- | --- |
| Download [**http://tinyurl.com/CW208-CAG-SIM**](http://tinyurl.com/CW208-CAG-SIM) PC Build Simulator.  Go through steps of building a PC, as you complete the simulation find and describe in detail components A to I. To run simulator first install <http://www.swffileplayer.com/> and open ***RootMovie.swf*** using SWF player. Alternatively install [Macromedia Flashplayer](https://fpdownload.macromedia.com/pub/flashplayer/updaters/32/flashplayer_32_sa.exe) . Ideally use a simulator as listed in class. | | |
| Label | Name each component | Description |
| A | RAM | Random Access Memory is volatile memory used for short term storage for programs. |
| B | GPU | Graphics Processing Unit is a separate CPU designed for making calculations used for graphics. |
| C | CPU | Central Processing Unit is the brain of the computer |
| D | Power Supply Unit | Provides the system with power. |
| E | Optical Drive | Reads disks. |
| F | Floppy Disk Drive | Used for reading floppy disks. |
| G | Hard Drive | Hard Drive is used for long term, permanent storage of data |
| H | SETA cable | Used for transferring data across the PC |
| I | Motherboard | Holds all the parts on the PC |

**Part B**

**Objective**

Compare a pre-assembled system and the components that could be assembled to build a comparable system. After completing this practical, you should be able to:

1. Identify the components of a pre-assembled system
2. Locate prices for components needed to assemble a comparable system
3. Compare the cost of a pre-assembled system and a self-assembled system.

If you can’t find exact match for components, find the closest possible substitute. Use the Internet and available computer-related publications as your sources for information. Examples of websites for computer parts [www.komplett.ie](http://www.komplett.ie), [www.dell.ie](http://www.dell.ie), [www.custompc.ie](http://www.custompc.ie) [www.amazon.de](http://www.amazon.de)

MAKE SURE TO INCLUDE VALID LINKS TO WEB REFERENCES

https://www.currys.ie/ieen/computing/desktop-pcs/desktop-pcs/dell-inspiron-3891-desktop-pc-intel-core-i5-1-tb-hdd-256-ssd-black-10226721-pdt.html

|  |  |  |
| --- | --- | --- |
|  | **Pre-Assembled Computer Package** | **Computer Package**  **Components** |
| **CPU** | Intel Core i5 10400 | Intel Core i5 10400  https://ie.pcpartpicker.com/product/X8snTW/intel-core-i5-10400-29-ghz-6-core-processor-bx8070110400 |
| **Storage / Memory** | | |
| |  | | --- | |  | | RAM | | Hard Drive | |  | | |  | | --- | |  | | 8gb ddr4 2666MHZ | |  | |  |   1TB HDD | 8gb ddr4 2666MHZ  <https://ie.pcpartpicker.com/product/TrYLrH/gskill-value-8gb-1-x-8gb-ddr4-2666-memory-f4-2666c19s-8gnt>  1TB HDD  https://ie.pcpartpicker.com/product/MwW9TW/western-digital-internal-hard-drive-wd10ezex |
| **Input/Output** | | |
| |  | | --- | | Keyboard | | Pointing Device | | Monitor | | Speakers | | Network Adapter | |  | |  | | Intel WiFi 6 | Wired keyboard  <https://ie.pcpartpicker.com/product/q7648d/corsair-k55-rgb-wired-gaming-keyboard-ch-9206015-na>  Logitech wired mouse  <https://ie.pcpartpicker.com/product/7RbwrH/logitech-g502-hero-wired-optical-mouse-910-005469>  23.8” HD monitor  https://www.harveynorman.ie/computing/computer-accessories/lcd-monitors/hp-m24fw-23.8-full-hd-monitor-2d9k1aa.html  Asus PCE-N15 Wi-Fi adapter  https://ie.pcpartpicker.com/product/RZNp99/asus-wireless-network-card-pcen15 |
| **Bundled Software**  (Including Operating System) |  |  |
| **Total Cost** | 789.00 | 620.00 |

**Part C**

**Objective**

You have been asked by a family friend to assist them with a computer purchase. They’re unfamiliar with technology and the terms used and have presented you with two alternatives machine choices. They would like to be able to write word documents, surf internet and play Minecraft © Mojang and Half-Life © Valve Software. They are considering playing Fortnight but are not sure yet, as it depends on machine cost and if they can extract some money from their Bitcoin wallet.

Compare Personal Computer Option A and B in relation to each of the side headings and recommend a system and any alterations.

|  |  |  |
| --- | --- | --- |
|  | Personal Computer  Option A | Personal Computer  Option B |
| CPU | 2.2 GHz Intel Celeron 450 | 3.2 GHz Intel Core i5 |
| Memory |  |  |
| |  | | --- | | Cache | | RAM | | Hard Drive | | CD-ROM/DVD | | |  | | --- | | 512 KB Cache | | 4 GB RAM | | 320 GB Hard Drive | | DVD+/-RW drive | | |  | | --- | | 4 MB Cache | | 8 GB RAM | | 1 TB Hard Drive | | DVD+/-RW drive | |
| Input/Output |  |  |
| |  | | --- | | Keyboard | | Pointing Device | | Screen | | Speakers | | Network Adapter | | |  | | --- | | USB multifunction keyboard | | USB optical mouse | | 20’’ HD flatscreen monitor | | Multimedia Speaker System | | Integrated 10/100/1000 Ethernet | | |  | | --- | | wireless multifunction keyboard | | wireless optical mouse | | 25’’ HD flatscreen monitor | | Dolby Surround Sound Speakers | | Integrated 10/100/1000 Ethernet | |

|  |
| --- |
| **Recommendations** |
| I recommend system B compared to system A as it features a faster CPU,more cache and RAM,has more disk space for games and personal files.On top of this,the wireless peripherals,larger monitor and surround sound speakers make it a more comfortable usable also. |

**Your Recommend System**

|  |  |
| --- | --- |
|  | Personal Computer  Recommendation |
| **CPU** | Intel Core i7-10700k  https://ie.pcpartpicker.com/product/yhxbt6/intel-core-i7-10700k-38-ghz-8-core-processor-bx8070110700k |
| **Memory** | |
| |  | | --- | |  | | RAM | | Hard Drive | | SSD Drive | | |  | | --- | | 8GB DDR4 2666MHZ  https://ie.pcpartpicker.com/product/TrYLrH/gskill-value-8gb-1-x-8gb-ddr4-2666-memory-f4-2666c19s-8gnt  2TB  https://ie.pcpartpicker.com/product/mwrYcf/seagate-barracuda-computer-2-tb-35-7200rpm-internal-hard-drive-st2000dm008  1TB  https://ie.pcpartpicker.com/product/Zxw7YJ/samsung-970-evo-plus-1-tb-m2-2280-nvme-solid-state-drive-mz-v7s1t0bam | |  | |  | |  | |
| **Input/Output** | |
| |  | | --- | | Keyboard | | Pointing Device | | Screen | | Speakers | | Network Adapter  GPU | | |  | | --- | |  | | Wired keyboard  <https://ie.pcpartpicker.com/product/q7648d/corsair-k55-rgb-wired-gaming-keyboard-ch-9206015-na>  Logitech wired mouse  <https://ie.pcpartpicker.com/product/7RbwrH/logitech-g502-hero-wired-optical-mouse-910-005469>  23.8” HD monitor  https://www.harveynorman.ie/computing/computer-accessories/lcd-monitors/hp-m24fw-23.8-full-hd-monitor-2d9k1aa.html  Asus PCE-N15 Wi-Fi adapter  https://ie.pcpartpicker.com/product/RZNp99/asus-wireless-network-card-pcen15 | |  | |  | |  | |

Hand up this practical report at the end of session and ensure it has been checked

|  |  |  |  |
| --- | --- | --- | --- |
| **Student Name** | **Paul Leith** | **Student Number** | **C00262449** |
| **Date** | **27/10/21** | **Checked** |  |
| **Group** | **A / B** |  |  |