1. Look at the following advert for a computer system



a) How much memory does this computer come with?

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…............................................................................................ [1]

b) What does the “320GB” mean?

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…............................................................................................ [1]

c) Name 1 piece of software that is included with the computer.

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…............................................................................................ [1]

2. Complete the following table, marking which category each of the following devices falls into.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Device | Input | Output | Storage | Processing | Communication |
| Keyboard |  |  |  |  |  |
| Touchscreen |  |  |  |  |  |
| USB stick |  |  |  |  |  |
| Modem |  |  |  |  |  |
| CPU |  |  |  |  |  |
| Scanner |  |  |  |  |  |

[4]

3. Paul takes his computer to a local computer shop complaining that it is too slow when playing games. The computer has an 800MHz processor, 512MB of RAM, a CD-ROM drive and a 40GB hard disc.

a) Explain the purpose of RAM.

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…...............…....…...................................................................................... [3]

b) Suggest two components Paul could upgrade to make his computer run faster and explain how it will make the computer run quicker:

i. Component: ..................................................................................

Reason: ….....................................................................................

…....…............................................................................................

ii. Component: ..................................................................................

Reason: ….....................................................................................

…....…............................................................................................ [4]

c) The computer shop recommends that Paul buys a new computer instead, but Paul is concerned about the environmental impact of throwing his old computer away.

Discuss the advantages and disadvantages of buying a new computer instead of upgrading an old one and advise Paul what he should do. You should focus on the environmental impact and the cost.

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4. Phyllis is learning about the CPU

a) Explain the purpose of the CPU.

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…...............…....…......................................................................................... [2]

b) Explain why increasing each of the following will make a computer system faster.

i. Clock speed.

…...............…....…................................................................................... ii. Cache size.

…...............…....…...................................................................................

iii. N u m b e r o f c o r e s.

…...............…....…................................................................................... [3]

5.

a) Give 2 differences between RAM and ROM.

i. …...............…....…...................................................................................

ii. …...............…....…................................................................................... [2]

b) A computer system has an 8MB cache and 2GB of memory. i. Does the computer have more cache or more memory?

…...............…....…................................................................................... ii. Explain the purpose of the cache

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…...............…....…................................................................................... iii. Explain what is meant by “Virtual Memory”

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…...............…....…................................................................................... [3]

6. Kevin needs to make a backup of his photography portfolio. He also needs to be able to send copies of his work to potential clients.

a) Explain why keeping a backup is important.

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…...............…....…......................................................................................

…...............…....…...................................................................................... [2]

b) Give 1 example for each of the following storage technologies. i. Optical

…...............…....…................................................................................... ii. Magnetic

…...............…....…................................................................................... iii. Solid State

…...............…....…................................................................................... [3]

c) Discuss the advantages and disadvantages of the storage technologies above and advise Kevin on what storage method to use for each of his two problems.

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…...............…....…........................................................................................... [6]

7. A shopkeeper needs software to manage the accounts of her shop. She decides to use off-the-shelf software instead of custom written software.

Describe **two** advantages to the shopkeeper of off-the-shelf software, compared to custom written software

Advantage 1

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Advantage 2

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8. Describe the following types of common utility programs.

**(a)**Antivirus

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**(b)**Disk defragmenter

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