Year 10 Computer Science CT 2 Topic List

Use this topic list to revise for your test. It will be on everything we have looked since September.

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| Topic 1 – Computer HardwareThe CPU * Von Neumann Architecture and the parts of a CPU (Control Unit, ALU, Cache, Registers)
* The fetch-decode-execute cycle.
* CPU performance (clock speed, cache size, cores)

Memory * ROM and RAM
* Purpose of Main Memory/RAM in a computer.
* Purpose of ROM in a computer.

Storage * Purpose of storage in a computer.
* Three types of storage (Magnetic, Optical, Solid State)
* Comparing the three types of storage.

Embedded Computers* Purpose of embedded computers
* Examples of embedded computers
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| Topic 2 – DataNumber Systems * Binary and Hexadecimal.
* Converting between different number systems.
* Adding binary numbers.

Units of Data* Bits, Bytes, KB, GB, TB.
* Converting between different units.

Data Representations* Characters in a computer.
* Images in a computer.
* Sound in a computer.
* Data compression.
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| Topic 3 – Computer NetworksTypes of Networks* LAN and WAN.
* Client – Server and Peer – to – Peer.
* Star and Mesh topologies

Network Media* Wired and Wireless networks.
* Network Hardware – switches, routers, WAPs, NICs.
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