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 Hardware  The 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 |
| Topic 2 – Data  Number 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. |
| Topic 3 – Computer Networks  Types 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. |