National University of Modern Languages

Assignment#01

Roll # 2340
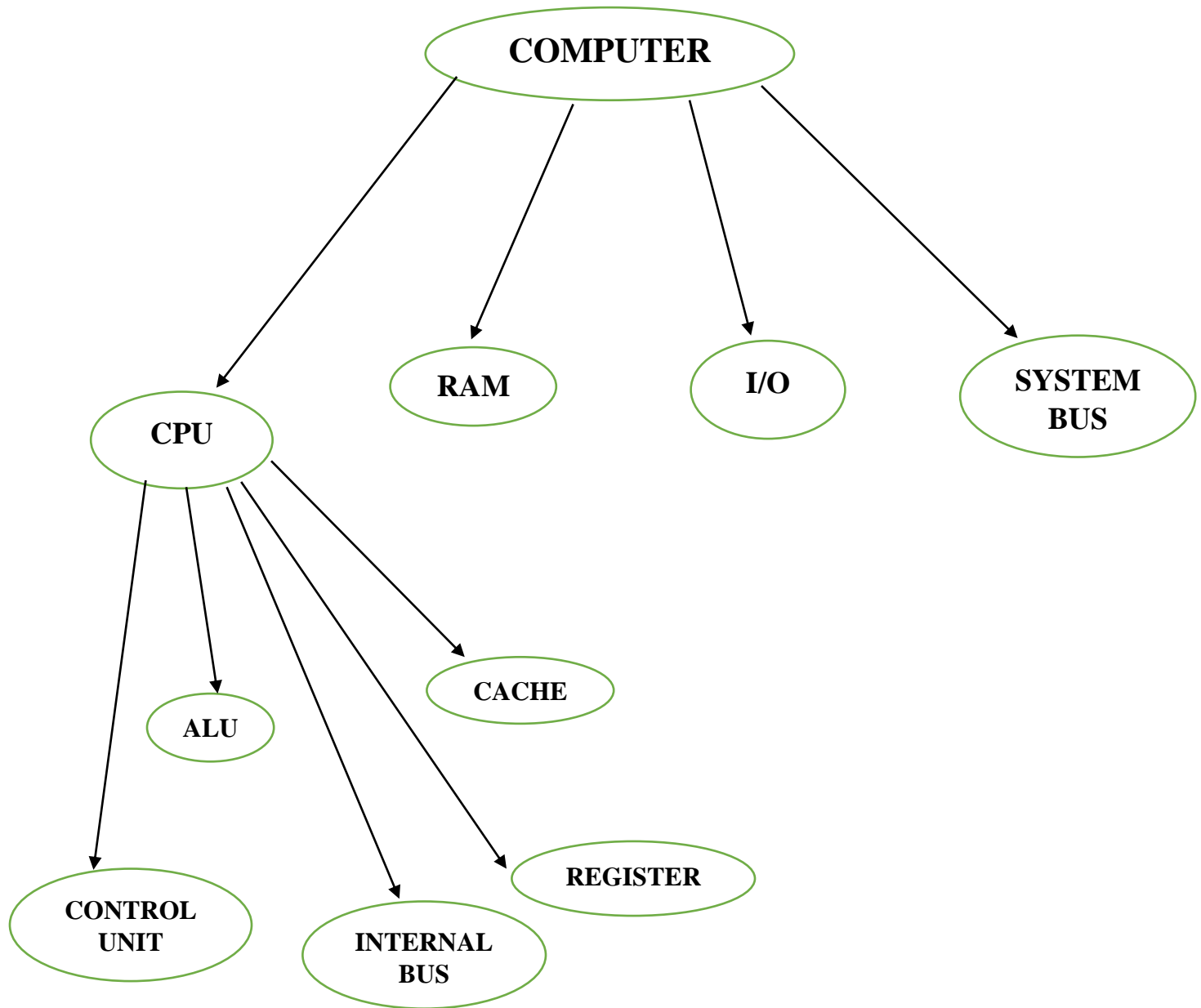
Class: BSCS 5B Morning

Subject: COAL

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Hierarchical Diagram:

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                        COMPUTER

        CPU          RAM          I/O         SYSTEM
                                                BUS

              ALU              CACHE

CONTROL         INTERNAL      REGISTER
  UNIT            BUS
```

COMPUTER: It is a complex hierarchical system that has three major components; Processor, Memory & I/O.

- **CPU:** It processes all instructions received by software running on the PC and by other hardware components, and acts as a powerful calculator.
- **RAM:** It is the super-fast and stores program's instructions & data at runtime.
- **I/O:** Such devices move data between the computer and its external environment.
- **System Bus:** Provides Communication among CPU, RAM & I/O.

CPU:

- **Control Unit:** It executes instructions & controls the operations of CPU & the computer.
- **ALU:** It performs processing on data.
- **Register:** They are internal storage of processor. They store one operand of each.
- **Cache:** It is a smaller and faster memory created on the chip.
- **Internal Bus:** It enables the communication between internal components, such as video card & memory.