**Studytonight – CAO test 1 – Aditya Jain**

1. **The \_\_\_\_\_\_ format is usually used to store data.  
   a) BCD**b) Decimal  
   c) Hexadecimal  
   d) Octal

Explanation: **Binary-Coded Decimal (BCD)** is a method representing decimal numbers in binary. In this system each decimal digit is represented by **four binary digits (nibble)**. For example, the decimal number 143 would be represented in BCD as: 0001 0100 0011.

The data usually used by computers have to be stored and represented in a particular format for ease of use.

1. **To reduce the memory access time we generally make use of \_\_\_\_\_\_**  
   a) Heaps  
   b) Higher capacity RAM’s  
   c) SDRAM’s  
   **d) Cache’s**

Explanation: **Need for Cache Memory:** As CPU has to fetch instruction from main memory speed of CPU depending on fetching speed from main memory. CPU contains **register which has fastest access** but they are limited in number as well as costly. Cache is cheaper so we can access cache. **Cache memory is a very high speed memory** that is placed between the CPU and main memory, to operate at the speed of the CPU.

1. **\_\_\_\_\_\_ is generally used to increase the apparent size of physical memory.**a) Secondary memory  
   **b) Virtual memory**  
   c) Hard-disk  
   d) Disks

Explanation: memory that appears to exist as main storage although most of it is supported by data held in secondary storage, transfer between the two being made automatically as required. **Virtual memory is like an extension to the existing memory.**

1. **MFC stands for \_\_\_\_\_\_\_\_\_\_\_**  
   a) Memory Format Caches  
   **b) Memory Function Complete**  
   c) Memory Find Command  
   d) Mass Format Command

Explanation: This is a system command enabled when a memory function is completed by a process.

1. **The time delay between two successive initiation of memory operation \_\_\_\_\_\_\_**a) Memory access time  
   b) Memory search time  
   **c) Memory cycle time**  
   d) Instruction delay

Explanation: The time taken to finish one task and to start another.

1. **The I/O interface required to connect the I/O device to the bus consists of \_\_\_\_\_\_**a) Address decoder and registers  
   b) Control circuits  
   c) **Address decoder, registers and Control circuits**d) Only Control circuits
2. **\_\_\_\_\_\_ bus structure is usually used to connect I/O devices.  
   a) Single bus**b) Multiple bus  
   c) Star bus  
   d) Rambus

Explanation: BUS is a bunch of wires which carry address, control signals and data. It is used to connect various components of the computer.

1. **The control unit controls other units by generating \_\_\_\_**a) Control signals  
   **b) Timing signals**  
   c) Transfer signals  
   d) Command Signals

Explanation: This unit is used to control and coordinate between the various parts and components of the CPU.

1. **\_\_\_\_\_\_ are numbers and encoded characters, generally used as operands.**a) Input  
   **b) Data**  
   c) Information  
   d) Stored Values
2. **The Input devices can send information to the processor.  
   a) When the SIN status flag is set**  
   b) When the data arrives regardless of the SIN flag  
   c) Neither of the cases  
   d) Either of the cases

Explanation: The input devices use buffers to store the data received and when the buffer has some data it sends it to the processor.

1. **The ALU makes use of \_\_\_\_\_\_\_ to store the intermediate results.  
   a) Accumulators**  
   b) Registers  
   c) Heap  
   d) Stack

Explanation: The ALU is the computational centre of the CPU. It performs all the mathematical and logical operations. In order to perform better, it uses some internal memory spaces to store immediate results.

An accumulator is a register for short-term, intermediate storage of arithmetic and logic data in a computer's CPU (Central Processing Unit).

The most elementary use for an accumulator is adding a sequence of numbers. The numerical value in the accumulator increases as each number is added and once the sum has been determined, it is written to the main memory or to another register.

1. **The small extremely fast, RAM’s are called as \_\_\_\_\_\_\_  
   a) Cache**b) Heaps  
   c) Accumulators  
   d) Stacks

Explanation: These small and fast memory devices are compared to RAM because they optimize the performance of the system and they only keep files which are required by the current process in them

1. **Which memory device is generally made of semi-conductors?  
   a) RAM**b) Hard-disk  
   c) Floppy disk  
   d) Cd disk

Explanation: Memory devices are usually made of semi-conductors for faster manipulation of the contents. Out of the above 4 options, only **RAM (Random Access Memory)** is a memory device, remaining 3 are storage devices.

1. **A source program is usually in \_\_\_\_\_\_\_**a) Assembly language  
   b) Machine level language  
   **c) High-level language**d) Natural language

Explanation: The program written and before being compiled or assembled is called as a source program. **High-level language** refers to the **Human readable** languages (JAVA, C++, etc) which are converted to **Low-Level Languages (Binary codes)** when compiled using a **compiler.**

1. **The 8-bit encoding format used to store data in a computer is \_\_\_\_\_\_**a) ASCII  
   **b) EBCDIC**c) ANCI  
   d) USCII

Explanation: The program written and before being compiled or assembled is called as a source program.

**EBCDIC (Extended Binary Coded Decimal Interchange Code)** is a binary code for alphabetic and numeric characters that **IBM** developed for its larger operating systems.

In an EBCDIC file, each alphabetic or numeric character is represented with an **8-bit binary number** (a string of eight 0's or 1's). **256** possible characters (letters of the alphabet, numerals, and special characters) are defined.