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Section 3

Quiz 3

**Q1: List the access method on Memory?**

Ans. 1:

- Sequential access

- Random access

- Direct access

- Associative -------------------------------------------------------------------------------------

**Q2: Write notes about “Word” on Memory?**

Ans. 2: word the natural unit of organization of memory. the cray 90 has a 64-bit word length but used a 46-bit integer representation. the size of word equal the number of bits used to represent an integer and the instruction length.

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**Q3: Write notes about Memory hierarchy?**

Ans. 3:

Main Memory:-

1) This is the actually memory accessed by the CPU.

2) Size of the main memory depends on size of address bus of the CPU.

3) It is implemented using semiconductor chips.

4) It comprises mainly of RAM and small amount of ROM.

5) These memories are located on the mother board.

Secondary Memory:-

1) It is generally used to increase the storage space.

2) Independent of the size of address bus of CPU.

3) It is implemented in the form of magnetic storage devices which have a lower cost per bit than semiconductor chips.

4) Only its connector is present on the mother board.

Cache Memory:-

1) It is used to increase the speed of operations.

2) It is implemented using SRAM chips.

3) SRAM is much faster than DRAM. But is more expensive, larger in size and consumes more power.

4) It is located very close to the CPU on the Mother board.

Offline Memory:-

1) It is implemented using magnetic tapes.

2) Used to increase the storage capacity.

3) It is very slow.

4) It is easily portable.

As we move away from the CPU in the memory hierarchy the speed decrease, storage space increase, cost per bit decrease.

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