IT ESSENTIAL COURSE TUTORIAL 2

1. Eight Bits make up a
   a . byte b. megabyte c. kilobyte d. None

2. What kind of memory is both static and non -volatile?
   a RAM b. ROM c. BIOS d. CACHE

3. ALU and Control Unit jointly known as
   a RAM b. ROM c. CPU d. PC

4. The CPU and memory are located on the :
   a expansion board b. motherboard c. storage device d. output device

5. CACHE memory holds:
   a . frequently used data and instructions c. instructions only
   b data only d. addresses only

6. First generation computers used …… languages.
   a . machine b. C++ c. Both '1' and '2' d. high lev

7. *BIOS* is the program a computer's microprocessor uses to start the computer system after it is powered on.

8. Define an instruction cycle.

   The instruction cycle (also known as the fetch–decode–execute cycle, or simply the fetch-execute cycle) is the cycle that the central processing unit (CPU) follows from boot-up until the computer has shut down in order to process instructions. It is composed of different stages such as: the fetch stage, the decode stage, and the execute stage.

9. Name the four steps involved in an instruction cycle.

   The four steps as: the fetch stage, the decode stage, the execute stage, and Storing Stage.

10. The number of instructions executed in a second by the CPU, is measured in Hertz.

11. Define a system bus.

    The Internal Bus, it is also called the System Bus, connects components inside the motherboard like, CPU and system memory.

12. A system bus comprises of three kinds of buses *Data*, *Address*, and *Control*.

13. Define control bus, address bus and data bus.

Control bus is a bus that carry the command to access the memory or the I/O device The

Address bus is a bus that carry the address of I/O device or memory.

Data bus is a bus that carry the data to be transferred.

14. The size of *Address* bus determines the maximum number of memory locations the computer can address.

15. A memory with 8-bit data bus and 8-bit address bus can store a maximum of 256 bytes.

16. Where is the expansion card fixed on the motherboard?

The expansion cards are inserted in the expansion slots.

17. List the factors that affect the performance of the computer.

Registers, RAM, Bus Data, Cache Memory.

18. List five ports available on the backside of the computer to connect the devices.

Video card, Fax / Modem card, Network card, Memory slot, and HD.

19. What are BIOS and POST?

- BIOS chip (Basic Input Output System): is the basic program used as an interface operating system and the motherboard.

- Power-On Self-Test (POST) for all hardware components of the system to make sure working properly at system startup.

20. What is expansion slot and list five expansion slots available in the computer?

An expansion slot is a socket on the motherboard that is used to insert an expansion card (or circuit board), which provides additional features to a computer such as Video, Sound, network, RAM, USB.