The microprocessor is a programmable device that takes input as numbers, performs on them arithmetic or logical operations according to

the program stored in memory and then produces other numbers as a result.

Microcomputer –a computer with a

microprocessor as its CPU. Includes memory, I/O

etc.

–Microprocessor –silicon chip which includes

ALU, register circuits & control circuits

–Microcontroller –silicon chip which includes

microprocessor, memory & I/O in a single

package.

8085 microprocessor is an 8 bit microprocessor. I.e. it can accept or provide 8 bit data simultaneously.

2) 8085 microprocessor is a single chip, NMOS semiconductor device implemented with 6200 transistors.

3) 8085 microprocessor requires a single +5V DC power supply.

4) 8085 microprocessor provides on chip clock generator, therefore there is no need of external clock generator, but it requires external tuned circuit like LC, RC or crystal.

7) 8085 provides 74 instructions with the following addressing modes:

- register
- direct
- immediate
- indirect
- implied.

9) 8085 microprocessor provides 16 address lines, therefore it can access 2^16 = 64K bytes of memory.

10) It generates 8 bit I/O address, hence it can access 2^8 = 256 input ports and 256 output ports.

11) It performs the following arithmetic and logical operations.

- 8 bit, 16 bit binary addition
- 2 digit BCD addition
- 8 bit binary subtraction
- logical AND, OR, EXOR
- complement and shift operations.

A 16 bit program counters (PC).

18) 8085 microprocessor provides two serial I/O lines which are SOD and SID; it means, serial peripherals can be interfaced with 8085 microprocessor directly.

- A 16 bit stack pointer (SP).
- It provides 1 accumulator, 2 flag register, six 8-bit general purpose register arranged in pairs: BC, DE, HL and 2special purpose registers.