

## TUTORIAL -6

- (1) Explain in detail the various bits of a flag register of 8086 microprocessor.
- (2) Explain with example why and how 20 bit address is generated in 8086 microprocessor.
- (3) Explain following instructions with example.

`CMP, LAHF, XCHG, LEA, PUSH AX, LDS DI, [3000h]`

- (4) What are assembler directives? Explain following assembler directives of 8086.

`ASSUME, DW, DQ, PROC, ENDP`

- (5) Identify the addressing modes for the following instructions:

- 1) `MOV CL, 34H`
- 2) `MOV BX, [4172H]`
- 3) `MOV DS, AX`
- 4) `MOV AX, [SI + BX + 04]`

- (6) Suppose `[AX] = 85H` and `[BX] = 64H`, `[SP] = 2000H`. What will be the value of `AX`, `BX` and `SP` after the following set of instructions are executed? (i) `PUSH AX` (ii) `POP BX`

- (7) Suppose `[AX] = ACH`. What will be the value in `AX` in each of the following cases if the carry flag is set? (i) `ROL AX, 2` (ii) `RCL AX, 2`

- (8) Explain the operation of the `DIV` instruction. What is the difference between `DIV` and `IDIV`?