

## 8086 Viva Questions & Answers

**Q: What are data transfer instructions in 8086? Give two examples.**

A: These move data from one place to another. Example: MOV, XCHG.

**Q: What is the difference between MOV and LEA instructions in 8086?**

A: MOV copies data; LEA loads the address of data.

**Q: Name any two arithmetic instructions used in 8086.**

A: ADD and SUB.

**Q: What is the function of the ADD and SUB instructions in 8086?**

A: ADD adds numbers, SUB subtracts numbers.

**Q: What are flag manipulation instructions? Give examples.**

A: They change flag bits. Example: CLC (clear carry), STC (set carry).

**Q: What is the purpose of CLC and STC instructions in 8086?**

A: CLC clears the carry flag, STC sets the carry flag.

**Q: What is the difference between shift and rotate instructions in 8086?**

A: Shift moves bits and fills with 0 or carry; rotate moves bits in a circle.

**Q: Explain how the ROL (Rotate Left) instruction works in 8086.**

A: ROL moves bits left; leftmost bit goes to rightmost place.

**Q: What is a stack in 8086 microprocessor?**

A: A stack is memory to store data temporarily using PUSH and POP.

**Q: What is the difference between PUSH and POP instructions?**

A: PUSH puts data on stack; POP takes data from stack.

**Q: What is a subroutine? Why is it used in assembly programs?**

A: A small program for repeated tasks to save time.

**Q: Explain the role of CALL and RET instructions in 8086.**

A: CALL jumps to subroutine, RET returns back.

**Q: Name any two supporting chips used with 8085 and 8086 microprocessors.**

A: 8255 (I/O ports), 8253 (timers).

**Q: What is the function of the 8255 chip when interfaced with 8086?**

A: 8255 connects input/output devices to microprocessor.

**Q: What is the size of the data bus in 8086?**

A: 16 bits.

**Q: How many flags are there in 8086? Name any three.**

A: 9 flags. Example: Carry flag, Zero flag, Sign flag.

**Q: What is the difference between 8085 and 8086 microprocessors?**

A: 8085 is 8-bit, 8086 is 16-bit and faster.

**Q: What is the function of the stack pointer (SP) in 8086?**

A: SP keeps track of top position of the stack.

**Q: Explain the concept of segmented memory in 8086.**

A: Memory is divided into segments to manage big memory.

**Q: What is the role of the instruction pointer (IP) in 8086?**

A: IP shows address of next instruction to run.