



SNS COLLEGE OF ENGINEERING

Kurumbapalayam (Po), Coimbatore – 641 107

AN AUTONOMOUS INSTITUTION

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



Class : III EEE / 05 SEM

Subject Name : 19EE503-Microprocessor and Microcontroller

Subject Topic : Addressing Modes

Objective : To analyse the concept of 8086 Addressing modes

Puzzle 1:

Clue: I involve a direct reference to a memory location using a segment and an offset, but I don't use any registers. What am I?

Answer: Direct Addressing Mode

Puzzle 2:

Clue: I calculate the effective address by adding the base register with the displacement. My name hints at a combination of a base and something small added to it. What am I?

Answer: Base-Displacement Addressing Mode

Puzzle 3:

Clue: I utilize an index register and a displacement value to determine the effective address. What addressing mode do I represent?

Answer: Indexed Addressing Mode

Puzzle 4:

Clue: I use the contents of a base register plus an index register to calculate the effective address. What addressing mode am I?

Answer: Base-Indexed Addressing Mode

Puzzle 5:

Clue: I involve adding a base register, an index register, and a displacement value to calculate the effective address. Which addressing mode am I?

Answer: Base-Indexed with Displacement Addressing Mode

Puzzle 6:

Clue: I work with segment registers, but I derive the memory address from a pointer stored in a register. What am I?

Answer: Register Indirect Addressing Mode

Puzzle 7:

Clue: My addressing mode requires no memory access; I operate only with registers. Which mode am I?

Answer: Register Addressing Mode

Puzzle 8:

Clue: I involve using a direct 16-bit displacement without any registers to point to the operand in memory. What is my mode?

Answer: Immediate Addressing Mode

Puzzle 9:

Clue: My effective address is determined by the sum of an index register and a segment displacement. Which addressing mode am I?

Answer: Indexed with Displacement Addressing Mode

Puzzle 10:

Clue: I calculate the memory address by adding the contents of a register to an immediate value embedded within the instruction. What is my addressing mode?

Answer: Based Addressing Mode