UNIT-2

PROGRAMMING OF 8085 PROCESSOR TWO MARKS

1. What is an instruction?

An instruction is a binary pattern entered through an input device to command the microprocessor to perform that specific function.

1. How many operations are there in the instruction set of 8085 microprocessor?

There are 74 operations in the 8085 microprocessor

3. List out the five categories of the 8085 instructions. give ex of the instructions for each group?

1. Data transfer group – MOV, MVI, LXI 2. Arithmetic group – ADD, SUB,INR. 3. Logical group- ANA, XRA, CMP. 4. Branch group – JMP, JNZ, CALL. 5. Stack I/O and machine control group – PUSH, POP,IN, HLT.

4. Explain the difference between a JMP instruction and CALL instruction.

A JMP instruction permanently changes the program counter. A CALL instruction leaves information on the stack so that the original program execution sequence can be resumed.

5. Explain the purpose of the I/O instructions IN and OUT The IN instruction is used to move data from an I/O port in to the accumulator.

The OUT instruction is used to move data from the accumulator to an I/O port. The IN and OUT instructions are used only on microprocessor, which use a separate address space for interfacing.

6. What is the difference between the shifts and rotate instructions?

A rotate instruction is a closed loop instruction. that is,the data moved out at one end is put back in at the other end. The shift instruction loses the data that is moved out of the last bit locations.

7. List the four instructions which control the interrupt structure of the 8085 microprocessor? DI (disable interrupts) EI(enable interrupts) RIM(read interrupt masks) SIM(set interrupt masks)

8. Mention the categories of instruction and give two ex for each category?

The instructions of 8085 can be categorized in to the following five 1. Data transfer MOV RD,RS,STA 16-BIT 2. Arithmetic ADD R,DCR M. 3. Logical XRI 8- bit,RAR 4. Branching JNZ CALL 16-bit 5. Machine control HLT,NOP

9. Explain LDA, STA AND DAA instructions

LDA copies the data byte in to the accumulator from the memory location specified by the 16-bit address.STA copies the data byte from the accumulator in the memory location