

- Q3)** The instruction code 0100 1111(4FH) is stored in memory location 2005H. Illustrate the data flow & list of sequence of events when the instruction code is fetched by MPU.
- Q4)** Using diagram explain how many address lines are used to identify an I/O port in the peripheral I/O and in the memory-mapped I/O method.
- Q5)** How does 8085 based single board microcomputer works?
- Q6)** Draw a schematic to demultiplex bus $AD_7 - AD_0$ using any octal latch.

Section - C

(2 × 10 = 20)

- Q7)** Draw the 8085 timing of execution of the 2 byte instruction MVI A, 32H (load the accumulator with the data 32H) & store in location as follow

Memory location	Machine Code	Mnemonics
2000	3E	MVI A, 32H
2001	32	

- Q8)** (a) Write the machine code for the instruction MOV H, A if the opcode = 01, the register code for H = 100₂ and register code for A = 111.
 (b) Explain why the PTR attribute operator is sometimes necessary in 8086.
- Q9)** (a) Write instruction to clear the CY flag, to load number FFH in register C, and to add 01 to (C), If the CY flag is set; display 01 at an output port otherwise display the content of register C.
 (b) Explain how traffic light system works using stepper motor interface.