



**Q 4) A) Answer any two of the following: (6 M)**

1. Explain the following Instructions:
  - a) DAA
  - b) LXI B
  - c) ANA D
2. Differentiate between Hardware Interrupt and Software Interrupt.
3. Explain unconditional and conditional call instructions.

**B) Answer any one of the following: (4 M)**

1. Explain function of the following pins:
  - a) Ready
  - b) SID
  - c) HLDA
  - d) TRAP
2. Draw a block diagram of microcomputer system? Explain each block Function.

**Q 5) A) Answer any two of the following: (10 M)**

1. Write an assembly language program to subtract the numbers stored in memory location 3601H from the number stored in memory location 3600H. Store the result in location 3602H.
2. Write an assembly language program to transfer a block of 5 8 bit numbers data having starting address 2000H to a new address 3000H. Length of data block should store at 1FFFH memory location.
3. Write an assembly language program to store a block of 5 8-bit numbers data in memory location starting from 3000H. the length of the block should be stored at 3500H. find the sum of all numbers in data block and store the result in 3510H.

**OR**

**Q 5) A) Answer any two of the following: (10M)**

- 1) Write an assembly language program to divide the numbers stored in memory location 3600H by the number stored in memory location 3601H. Store the result in location 3602H.
- 2) Write an assembly language program to take the 2's complement of an 8-bit number stored at location 3500H. Store the result at memory location 3501H.
- 3) Write an assembly language program to perform the multiplication of two eight bit numbers, where multiplicands to be stored at memory location 1050H and 1051H and result to be stored at memory location 1052H and if carry then to be stored in 1053H.