

**Subject: - Introduction to Micro Processor MCA-205 (N2)**

**2- Marks Questions for section A**

1. What is the purpose of PC?
2. What is the role of memory? Classify the memories.
3. Discuss the significance of flag register employed by different microprocessor.
4. What are the different steps during the read cycle of memory?
5. Discuss the use of serial interfaces in the communication.
6. Discuss the areas of application where microprocessor technology is in use.
7. Explain the difference between the following:
  - a. Microprocessor & Microcomputer.
  - b. Fetch & Execution cycle.
  - c. Instruction register & instruction format.
  - d. Assembler & Compiler.
8. Discuss:
  - a. Role of clock in a Microprocessor.
  - b. Role of instruction format. Describe a typical instruction format.
  - c. Role of addressing mode.
  - d. Role of ROM in a microprocessor based system.
  - e. The difference between clock cycle, machine cycle & an instruction cycle.
  - f. The difference between hardware & software interrupts.
  - g. Role of Stack.
9. Discuss the functions of the following signals of 8085.
  - a. RD
  - b. ALE
10. What is the purpose of Program Counter in 8085?
11. What is SIM?
12. What will the status of CY flag after execution of CMP L instruction?
13. What will be the contents of PC after the execution of RST 6 instruction?
14. Write three different methods to clear the accumulator.
15. Why de-multiplexing of AD7- AD0 is required?
16. Explain the difference between
  - a. High Level & Low Level Languages.
  - b. Serial & parallel interfaces.
17. Why a microprocessor needs ROM & RAM memories?

**2- Marks Questions for section B**

20. Discuss the use of index registers of 8086 microprocessor
- 21 Explain the function of queue in 8086.

- 22 Define word length of 8086
- 23 Name the addressing modes of 8086.
25. What is the function of clock generator?
26. What do you mean by real mode memory addressing?
27. What do you mean by protected mode memory addressing?
28. Define the function of segment plus offset addressing scheme.
30. Generate 20 bit physical address if CS=1000h and IP=34FFh.
31. What is the function of BIU and EU in 8086?
32. Name the Interrupts of 8086
33. What do you mean by memory paging?
34. Tell the difference between minimum and maximum mode?
35. Define the function of following pins:
  - a) QS0 and QS1
  - b) RESET
  - c) READY
36. What is the role of Code, Data and Stack segment registers.
  
37. What do you mean by STACK and ISR?

## 2- Marks Questions for section C

38. The 8085 register contains the following data:  
A=0101 1011, B=1010 1011, H=0100 0000, L=0010 0000.  
What will be the contents of register A & register B after the execution of the following instructions:
  - a. XRA B
  - b. RAL
  - c. ADD L
  - d. ANA B
  
39. Explain the following instructions:
  - a. MOV A,M
  - b. DAA
  - c. JMP 2000 H.
40. Explain the functions of following 8085 instructions with examples:
  - d. XRA
  - e. RLC
  
41. Explain the functions of following 8086 instructions:
  - f. MOV AX,[1234}
  - b. ADD DX,BX
42. Explain the function of the following 8085 instructions with examples:
  - a. LHLD
  - b. XCHG
  - c. STA

- d. JNC
- e. MVI

## 2- Marks Questions for section D

43. What is DMA data transfer?
44. List main features of programmable peripheral Interface.
45. Explain the function of DMA controller.
46. What is the function of 80X87?
47. List main features of 8257.
48. Draw the pin diagram of DMA controller.
49. Tell the difference between 8237 and 8257.
50. Explain the function of Interrupt controller

## 5 Marks Questions.

2. Explain the purpose of Bus Interface Unit of 16- Bit microprocessor.
3. Discuss the procedure for addressing memory locations for the purpose of write operation.
4. What is the role of DMA controller? Explain.
5. Discuss the new developments in microprocessor technology.
6. Draw and explain the block diagram of 8086 microprocessor.
7. Write an 8086 assembly language program to perform subtraction of two 128 bit numbers stored in consecutive locations.
8. Write a detailed note on 8259 programmable interrupt interface.
9. Discuss the comparison of the important architectural features of 16 bit and 32 bit microprocessors.
10. What is ROM? Mention its varieties and discuss the difference among these.
11. Discuss a microprocessor application for measuring and monitoring the temperature of a furnace.
12. With the help of block diagram, discuss the working of a DMA controller.
13. Discuss the various addressing modes of 8085 microprocessor with examples.
14. Draw the timing diagram of MOV A, M.
15. Write an assembly language program to multiply the contents of memory location 2040H with 2041H
16. Write an 8085 based assembly language program to arrange a series of numbers in descending order.
17. What is RIM? Discuss the bit pattern of the accumulator for RIM instruction.
18. Discuss how you will select a microprocessor for particular applications.
19. Discuss in detail a serial interface.