

MASTER OF COMPUTER APPLICATION
FIFTH SEMESTER
MICROPROCESSOR & MICROCONTROLLER (MDC)
MSE-306

Duration: 3 Hrs.

Marks: 70

PART : A (OBJECTIVE) = 20
PART : B (DESCRIPTIVE) = 50

[PART-B : Descriptive]

Duration: 2 Hrs. 40 Mins.

Marks: 50

[Answer question no. One (1) & any four (4) from the rest]

1. a) Determine the physical starting address of each segment located by following segment register values: (3+7=10)
CS = ABCD H
DS = 1234 H
ES = 1567H
b) Check the conditions of the flags after the execution of the following 8085 instructions:
MVI B, 25H;
MVI C, 32H;
MOV A,B;
SUI 05H;
ADD C;
2. Draw the functional block diagram of 8085 microprocessor. (10)
3. Draw the functional block diagram of 8051 microcontroller. (10)
4. a) Define the addressing modes of Intel 8085 with examples. (5+5=10)
b) Discuss the Program Status Word of Intel 8085.
5. Explain the PSW register of Intel 8086 microprocessor. (10)
6. What will the values be in registers A, B, C after the execution of the following 8085 instructions? (10)
MVI A, FFH;
SUI 02H;
MOV B,A;
RLC;
RLC;
MOV C,A;
ORA B;
ADI 98H;
7. Discuss the interrupt system of Intel 8085. (10)
8. Define the addressing modes of Intel 8086 with examples. (10)

**MASTER OF COMPUTER APPLICATION
FIFTH SEMESTER
MICROPROCESSOR & MICROCONTROLLER (MDC)
MSE-306**

[PART-A : Objective]

Choose the correct answer from the following:

1×20=20

1. The software used to drive microprocessor based systems is called:
 - a. Assembly language
 - b. Firmware
 - c. Machine language code
 - d. BASIC interpreter instructions
2. The circuits in 8085 that provide the arithmetic and logic functions are called:
 - a. CPU
 - b. ALU
 - c. I/O
 - d. None of the above
3. How many buses are connected as part of the 8085 microprocessor?
 - a. 2
 - b. 3
 - c. 5
 - d. 8
4. In 8086, how many bits are used in the data bus?
 - a. 7
 - b. 8
 - c. 9
 - d. 16
5. Single bit indicators that may be set or cleared to show the results of logical or arithmetic operations are the:

a. Flags	b. Registers
c. Monitors	d. Decisions
6. Since microprocessors do not understand the mnemonics as they are, they have to be converted to:
 - a. Hexadecimal machine code
 - b. Binary machine code
 - c. Octadecimal machine code
 - d. None of the above
7. Which bus is a bidirectional bus?
 - a. Address
 - b. Data
 - c. Address and data
 - d. None of the above
8. What is meant by ALU?
 - a. Arithmetic Logic Upgrade
 - b. Arithmetic Logic Unsigned
 - c. Arithmetic Local Unsigned
 - d. Arithmetic Logic Unit
9. 8051 microcontroller has how many pins?
 - a. 30
 - b. 39
 - c. 40
 - d. 41
10. In 8085, name of the 16-bit registers are:
 - a. Stack pointer
 - b. Program counter
 - c. Both a) and c)
 - d. None of the above
11. INR instruction increments the contents of destination by:
 - a. 1
 - b. 2
 - c. 3
 - d. 4
12. Program Status Word of 8085 has five flags:
 - a. Sign, Zero, Auxiliary Carry, Parity, Carry
 - b. Sign, Overflow, Auxiliary Carry, Parity, Carry
 - c. Sign, Zero, Overflow, Parity, Carry
 - d. Sign, Zero, Auxiliary Carry, Parity, Overflow
13. MOV A,B will:
 - a. Copy content of register B to register A
 - b. Copy content of register A to register B
 - c. Copy content of register C to register A
 - d. None of the above
14. Which of the following registers can be paired together?

a. A and B	b. B and C
c. C and D	d. H and L



Serial no. of the main Answer sheet

- 15. A microcomputer consists of:
 - a. A microprocessor
 - b. Memory
 - c. I/O device
 - d. All of the above
- 16. The number of hardware interrupts present in 8085 microprocessor are:
 - a. 5
 - b. 8
 - c. 16
 - d. 10
- 17. The addressing mode in instruction MVI B, 34H is:
 - a. Direct
 - b. Register
 - c. Register indirect
 - d. Immediate
- 18. Before execution, the value of register A is 23H. What will be the value of register A after the execution of instruction RLC?
 - a. 46H
 - b. 54H
 - c. 56H
 - d. 40H
- 19. The internal RAM of 8051 is:
 - a. 32 bytes
 - b. 64 bytes
 - c. 128 bytes
 - d. 256 bytes
- 20. The 8051 has _____ 16-bit timers/counters.
 - a. 1
 - b. 2
 - c. 3
 - d. 4

== *** ==

Course :

Semester : Roll No :

Enrollment No : Course code :

Course Title :

Session : 2017-18 Date :

Instructions / Guidelines

- The paper contains twenty (20) / ten (10) questions.
- Students shall tick (✓) the correct answer.
- No marks shall be given for overwrite / erasing.
- Students have to submit the Objective Part (Part-A) to the invigilator just after completion of the allotted time from the starting of examination.

Full Marks	Marks Obtained
20	

Scrutinizer's Signature

Examiner's Signature

Invigilator's Signature