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**4th Sem / Comp, Eltx, Med Eltx, Mecatronics  
(5th Sem) Power Eltx**

**Subject:- Microprocessor and Peripheral Devices/  
microp. & App.**

Time : 3Hrs.    M.M. : 100

### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 8085 is a \_\_\_\_\_ bit microprocessor. (CO2)  
a) 4    b) 8  
c) 12    d) 16
- Q.2 Higher priority is assigned to \_\_\_\_\_ interrupt. (CO6)  
a) RST 7.5    b) RST 6.5  
c) INTR    d) TRAP
- Q.3 MVIA 06 is a \_\_\_\_\_ byte instruction. (CO4)  
a) 1    b) 2  
c) 3    d) 4
- Q.4 MOV B,A is example of which addressing mode? (CO4)  
a) Implied    b) Direct  
c) Register    d) Indirect
- Q.5 The frequency of operation of 8085 is \_\_\_\_\_ Mhz. (CO2)  
a) 1    b) 2  
c) 3    d) 3.5

- Q.6 8255 has \_\_\_\_\_ no. of ports. (CO8)  
a) 1    b) 2  
c) 3    d) 4
- Q.7 8253 is a \_\_\_\_\_ pin I.C (CO8)  
a) 20    b) 24  
c) 28    d) 32
- Q.8 8086 has \_\_\_\_\_ memory. (CO9)  
a) 64 KB    b) 128 KB  
c) 1 MB    d) 2 MB
- Q.9 Which of the following STACK is used in 8085? (CO4)  
a) LIFO    b) FIFO  
c) LILO    d) FILO
- Q.10 The address of the new next instruction to be executed is stored in \_\_\_\_\_ (CO2)  
a) Stack Pointer    b) Address latch  
c) Program counter    d) Accumulator

### SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Expand ALE. (CO2)
- Q.12 Define Opcode. (CO4)
- Q.13 What is function of EI? (CO6)
- Q.14 What is full form of SIM? (CO6)
- Q.15 Write instructions related to stack pointer. (CO4)
- Q.16 Contents are accumulator are 95 H & carry flag is reset. What will be its contents after execution of instruction "RAL" (CO4)

- Q.17 Write two modes of 8086. (CO9)  
 Q.18 Expand DMA. (CO7)  
 Q.19 What are instructions used in subroutines? (CO4)  
 Q.20 Write any two applications of 8253. (CO8)

### SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 What is basic difference between micro computer & microprocessor? (CO1)  
 Q.22 Why address bus is multiplexed? (CO2)  
 Q.23 Explain in brief different flags in 8085. (CO2)  
 Q.24 What are different maskable interrupts? (CO6)  
 Q.25 Explain in brief the instruction cycle & machine cycle. (CO3)  
 Q.26 What is fetch and execute operation? (CO3)  
 Q.27 Briefly explain various addressing modes. (CO4)  
 Q.28 Write an assembly language program with comments to add two 8 bit numbers and store the data at 2500 H. (CO4)  
 Q.29 Explain in brief about the following instructions (CO4)

- |           |          |
|-----------|----------|
| i) DAD    | ii) JNC  |
| iii) LHLD | iv) CALL |
| v) LXIH   |          |

- Q.30 What are the different operating modes of 8255? (CO8)

- Q.31 Show how memory is organized in 8086? (CO9)  
 Q.32 Explain in brief the hardware & software interrupts. (CO6)  
 Q.33 Differentiate between memory mapped & I/O mapped scheme. (CO5)  
 Q.34 Explain in brief the interrupt driven data transfer. (CO7)  
 Q.35 What is function of BIU & EU in 8086? (CO9)

### SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Explain in detail the architecture and block diagram of 8085. (CO2)  
 Q.37 a) Show how address decoder works? (CO5)  
 b) Write in brief how stack pointer works. (CO4)  
 Q.38 Explain the working of 8255 and show how control word is formed in this? (CO8)