

B.Sc.- II (CBCS Pattern) Sem-III  
**USELT06 - Electronics Paper-II : Microprocessor**

P. Pages : 2

Time : Three Hours



**GUG/W/22/11605**

Max. Marks : 50

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- Notes : 1. All questions are compulsory and carry equal marks.  
2. Draw neat and labelled diagram wherever necessary.

**1.** Either

- a) Explain Memory Organization and its addressing scheme. Give the classification of memory and explain it. **10**

**OR**

- b) Explain the following terms of 8085  $\mu$ p : **10**  
i) Data bus and Address Bus  
ii) Flag Register

**2.** Either

- a) Explain various addressing modes of 8085  $\mu$ p with suitable examples. **10**

**OR**

- b) Explain the following instructions of data transfer group. **10**  
i) MOV  $R_d, R_s$   
ii) MVI R, data  
iii) Out 8 bit add  
iv) IN 8 bit add  
v) HLT

**3.** Either

- a) What is subroutine? Explain the operation of subroutine. Write an ALP to perform subtraction of two 8-bit numbers. **10**

**OR**

- b) Explain the timing diagram of MOV instruction **10**  
What is interrupt? Explain hardware and software interrupt.

**4.** Either

- a) Explain the minimum modes of 8086  $\mu$ p. Explain the function of Bus interface unit in 8086  $\mu$ p. **10**

**OR**

- b) Explain the flag register of 8086  $\mu$ p. Explain the function of queue in 8086  $\mu$ p.

5. Attempt **any ten** of the followings.

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- a) What is input device?
- b) What is the function of ALU?
- c) What is the function of program counter?
- d) What is stack?
- e) What is flowchart?
- f) State the meaning of JMP instruction.
- g) What is delay loop?
- h) Define T-State of instruction.
- i) What is instruction cycle?
- j) What is the size of data bus and address bus of 8086 $\mu$ p ?
- k) What is the function of segment register?
- l) What is the function of instruction pointer (IP) in 8086 $\mu$ p ?

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