

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

P. Pages : 2

Time : Three Hours



**GUG/S/25/11605**

Max. Marks : 50

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

1. a) Explain the following terms of 8085 microprocessor. 5  
i) Data and address bus  
ii) Arithmetic and Logic Units (ALU)
- b) Explain the function of program counter and stack pointer register. 5

**OR**

- c) What is flags in 8085  $\mu$ p ? Explain the various flags of 8085  $\mu$ p . 5
- d) Explain the role of ALE and HOLD pins of 8085  $\mu$ p . 5
2. a) Explain 5  
i) Direct Addressing Mode.  
ii) Indirect Addressing Mode.
- b) Explain the following instruction: with suitable example. 5  
i) MOV R1, R2  
ii) MVI R1, Data  
iii) ANA R  
iv) XRI 8 – bit  
v) CMA

**OR**

- c) What is flowchart? Explain the function of various symbol of flowchart. 5
- d) What is stack? Explain its operation. 5
3. a) Write the assembly language program for addition of two 8-bit number & store the result in memory location. Also draw flowchart for it. 5
- b) Explain the role of subroutine in programming. 5

**OR**

- c) Explain the timing diagram of MOV instruction. 5
- d) Explain 5  
i) Hardware interrupt.  
ii) Software interrupt.

4. a) Differentiate between 8085 and 8086 microprocessor. 5
- b) Explain the function of queue in 8086  $\mu$ p. 5

**OR**

- c) Explain the various flags of 8086  $\mu$ p. 5
- d) Explain the minimum mode of 8086  $\mu$ p. 5

5. Solve **any ten** of the following. 1x10

- a) Differentiate between RAM & ROM.
- b) Write the features of 8085  $\mu$ p.
- c) What is interrupt in 8085  $\mu$ p?
- d) What is addressing modes?
- e) What is subroutine?
- f) What is register addressing mode?
- g) What is delay loop in programming?
- h) Specify the memory location and its content after the execution of following program.
- ```
MVI B, F7H
MOV A, B
STA 6050
HLT
```
- i) What is machine cycle?
- j) State the features of 8086  $\mu$ p.
- k) What is directives?
- l) State the function of  $\overline{MN}/\overline{MX}$  pin of 8086  $\mu$ p.

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