Bachelor of Science (T.Y.B.Sc.) (Part-III) Sixth Semester

B.Sc. 4517 - Electronics Paper-I (Compulsory)
Microprocessor, Interfacing and Microcontrollers

P. Pages : 1 **GUG/W/18/1344**

Time : Three Hours * 1 0 5 7 * Max. Marks : 50

Notes : 1. All questions are compulsory and carry equal marks.
2. Draw a diagram wherever necessary.
3. Use of log table/ calculator is allowed.

1. Either

a) What is debouncing of a switch? Explain. Draw a suitable diagram of 4x4 matrix keyboard interfacing and explain. **5+5**

OR

b) Explain interfacing of LED with 8085 microprocessor. Draw suitable diagram for interfacing SSD and explain its working. **5+5**

2. Either

a) Explain measurement of phase and frequency using microprocessor. **5+5**

OR

b) What is delay subroutine? Explain delay subroutine using one register and register pair. **2+4+4**

3. Either

a) Draw block diagram of 8086 microprocessor and explain function of each block. **10**

OR

b) What is addressing mode? Explain any three addressing modes of 8086 μp. with suitable example. **1+9**

4. Either

a) Draw block diagram of 8051 microcontroller and explain function of each block. State the common features of 8051 microcontroller. **7+3**

OR

b) State the meaning of following instructions in 8051 microcontroller. **10**

i) ADD A, R_2
ii) MOV A, #25H
iii) INC R.
iv) MOV R3, #3
v) ORG OH

5. a) Explain DIP with interfacing with microprocessor. **2½x4= 10**

b) Explain microprocessor based traffic control.

c) What are assembler and directives? Explain.

d) Explain common features of 8096 microcontroller.

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