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

P. Pages : 1

GUG/W/16/5634

Time : Three Hours

0105

Max. Marks : 50

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

Either

1. a) What is key debouncing ? Explain hardware and software key debouncing. **10**

OR

b) Explain the interfacing of A/D converter ADC 0800 with microprocessor and draw necessary diagram. **10**

Either

2. a) What is delay subroutine ? Explain the delay subroutine using register pair. **10**

OR

b) Explain the concept of microprocessor based traffic control. **10**

Either

3. a) Draw a block diagram of 8086 and explain the function of each block in it. **10**

OR

b) State any five addressing modes of 8086 microprocessor and explain each with example. **10**

Either

4. a) Draw internal architecture of 8051 microcontroller and explain. **10**

OR

b) List various groups of instruction set in 8051 microcontroller.
State the meaning of following instructions :
i) MOV A, 020H   ii) MOV RO, A   iii) ADD A, @ RO
Write a program in µc8051 for addition of two 8-bit numbers. **10**

5. a) What is interfacing ? Explain the needs of interfacing. **2½**

b) Explain temperature measurement using microprocessor. **2½**

c) Explain any two assembler directives in 8086 microprocessor. **2½**

d) State the features of 8096 microcontroller. **2½**

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