

Roll No.

Total Pages : 2

BSIT/D-14

12260

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MICROPROCESSOR ARCHITECTURE
AND PROGRAMMING-III
Paper-BSIT-505

Time : Three Hours]

[Maximum Marks : { Regular : 40
Reappear : 45

Note : Attempt *five* questions in all. Select *one* question from each unit. Question No. 1 is compulsory.

Compulsory Question

1. (a) Explain key differences between hardware interrupt and software interrupt. 2
- (b) Why memory mapped method of interfacing I/O devices is not preferred ? 2
- (c) Explain the main functions performed by a memory. 2
- (d) What do you mean by swapping out of the executable program. 2

UNIT-I

2. (a) Discuss nested macro using suitable example. 4
- (b) Explain the process of passing parameters to macro. 4
3. (a) Explain the structure of interrupt vector table of 8086. 4
- (b) Write ALP to generate 3 sec. delay using microprocessor system that runs at 10 MHz. 4

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UNIT-II

4. (a) Explain how dynamic memory is interfaced with a CPU. 4
(b) Interface six 8K RAM chips and six 8K EPROM chips with 8086. 4
5. (a) Discuss memory-mapped method of Interfacing I/O devices using suitable example. 4
(b) Write ALP to display numbers 1 to 5 on 7 segment displays interfaced with 8086 output ports. The 7-segment codes are stored in a look-up table serially at address 2000:0000H onwards. 4

UNIT-III

6. (a) Discuss interface of ADC with 8086 using suitable block diagram. 4
(b) How does CPU differentiate the 8087 instructions from its own instructions. 4
7. Draw and discuss Architecture of 8087. 8

UNIT-IV

8. (a) Explain the salient features of 80286 in virtual address mode. 4
(b) Explain Net Burst micro architecture. 4
9. (a) Discuss advantages and basic features of RISC processor. 4
(b) Discuss salient features of Pentium 4. 4