

**Third Semester B. Sc. Information
Technology Examination**

MICROPROCESSOR AND ALP

Paper – I

Time : Three Hours]

[Max. Marks : 50

- N. B. : (1) All questions are compulsory and carry equal marks.
(2) Draw neat and labelled diagram wherever necessary.

EITHER

1. (a) Draw the block diagram of internal architecture of 8086 μ p and explain the function of queue in it. 5
(b) Write an assembly language programme using 8086 μ p instruction set to find the largest among the three numbers A, B and C. 5

OR

- (c) What are the different addressing modes of 8086 μ p ? Explain any one with suitable example. 5
(d) Explain flag register format of 8086 μ p and function of any two flags with example. 5

2. EITHER

- (a) What is DMA ? Explain DMA data transfer method with flow chart. 5
(b) Explain minimum mode of operation of 8086 μ p in brief. 5

OR

- (c) What is PPI ? Explain BSR mode of operation of PPI 8255 IC. 5
(d) What is A/D and D/A convertor ? Explain interfacing of D/A convertor with μ p. 5

EITHER

3. (a) What is interrupt ? Explain interrupt structure of 8086 μ p. 5
(b) Differentiate between synchronous and asynchronous data transfer. 5

OR

- (c) Write short notes on RS 232 C 5
(d) Draw the block diagram of 8251 USART and explain each block in brief. 5

4. EITHER

- (a) Draw the block diagram of internal architecture of 80286 μ p. 5
(b) Explain the concept of segmentation and paging with respect to 80386 μ p. 5

OR

- (c) Explain Real and Protected mode of operation of 80386 μ p. 5
- (d) Explain salient features of Pentium. 5

5. (a) Explain any two string manipulation instruction of 8086 μ p with suitable example. $2\frac{1}{2}$
- (b) Explain mode 0 of operation of 8255 IC. $2\frac{1}{2}$
- (c) Write a short notes on USB. $2\frac{1}{2}$
- (d) What is RISC? What are its main features ? $2\frac{1}{2}$