Bachelor of Science (B.Sc. IT) Semester–III (C.B.S.) Examination
MICROPROCESSOR AND ALP
Paper–I

Time : Three Hours]   [Maximum Marks : 50

N.B. :—   (i) All questions are compulsory and carry equal marks.

(ii) Draw a necessary diagram wherever necessary.

EITHER

1. (a) Draw a block diagram of internal architecture of 8086 μp and explain the function of stack pointer register in it.   5

(b) Write an assembly language program to find the smallest element of an array containing 10 numbers.   5

OR

(c) What are addressing modes ? What are the different addressing modes available in 8086 μp ? Explain any one with example.   5

(d) Explain all string manipulation instructions used in 8086 μp with example.   5

EITHER

2. (a) Differentiate between minimum and maximum modes of operation of 8086.   5

(b) What is DMA ? What are its advantages ? Explain the operation of DMA with block diagram.
                                                                    5

OR

(c) What is PPI ? Explain mode-0 operation of 8255.   5

(d) What is D/A and A/D convertor ? What are their utilities in interfacing ? Explain.   5

EITHER

3. (a) Explain intercept structure of 8086 μp.   5

(b) Draw a internal architecture of 8259 IC and explain its working in brief.   5

OR

(c) Draw a block diagram of 8251.   5

(d) Write short notes on :

(i) RS232C

(ii) RS232C to TTL conversion.   5

EITHER

4. (a) Draw an internal block diagram of 80286 μp and give its main features.   5

(b) What is segmentation and paging ? Explain the concept with reference to 80386 μp.   5

OR

(c) What is Pentium processor ? Give the salient features of it.   5

(d) Write short notes on RISC processors in brief.   5

5. Attempt **ALL** :

(a) Write a short note on Assembler directives.   2½

(b) What is BSR mode of operation of 8255 ? Explain.   2½

(c) What is DOS and BIOS interrupt ? Explain.   2½

(d) Compare the salient features of 80286 and 80386 μps.   2½