Bachelor of Science (B.Sc.I.T.) Semester—III (C.B.S.) Examination

MICROPROCESSOR AND ALP

Paper—I

Time : Three Hours] [Maximum Marks : 50

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

EITHER

1. (A) Draw a well labelled block diagram of 8086 µp and give its main features. 5
   (B) Explain flag register format of 8086 µp. 5

   OR

   (C) Write an assembly language programme using instructions of 8086 µp to add the constants of an array containing 10 numbers. 5
   (D) Explain any three string manipulation instructions of 8086 µp with suitable example. 5

   EITHER

2. (A) What is PPI ? Explain mode-o operating of 8255. 5
   (B) What are the different problems associated with interfacing keyboard ? How they can be avoided ? Explain. 5

   OR

   (C) What is DMA ? What are its advantages ? Explain its operations in burst mode. 5
   (D) What is static RAM ? How can it be interfaced with 8086 ? Explain with a block diagram. 5

   EITHER

3. (A) Explain interrupt structure of 8086 µp. 5
   (B) Write a short note on RS 232 C. 5

   OR

   (C) Differentiate between synchronous and asynchronous data transfer. 5
   (D) What is USART ? Draw a block diagram of internal architecture of 8251 USART. 5

   EITHER

4. (A) Draw a block diagram of internet architecture of 80286 µp and explain each block in brief. 5
   (B) Explain the concept of paging and segmentation of 80386 µp. 5

   OR

   (C) What is RISC ? Explain its architecture in brief. 5
   (D) Explain Real mode of operation of 80386 µp. 5

5. Attempt **ALL** :
   (A) Write a short note on Assembler directives. 2½
   (B) Explain Minimum mode of operation of 8086 µp. 2½
   (C) What is USB ? Explain. 2½
   (D) Give any five features of Pentium. 2½