

(3Hrs)

**Max Marks: 80**

- NB: 1. Question No.1 Compulsory.  
 2. Solve any THREE from Q.2 to Q.6  
 3. Assume suitable data whenever necessary with justification.

**Q1 Answer any FOUR questions**

- |     |   |    |
|-----|---|----|
| (A) | Explain Memory Bank in 8086 Processor.  | 05 |
| (B) | Give different bits of Control Register-0 (CR0) of 80386.   | 05 |
| (C) | Draw and Explain Floating Point Pipeline for Pentium Processor.   | 05 |
| (D) | Explain assembler directives.   | 05 |
| (E) | Explain DAA and XLAT instructions of 8086 Processor.  | 05 |
|     |   |    |
| Q2. | (A) Explain architecture of 8086 Processor with example.  | 10 |
|     | (B) Explain PPI 8255 with block diagram.  | 10 |
|     |   |    |
| Q3. | (A) Design 8086 based system with following specifications.<br>(1) 8086 working at 8MHz at minimum mode<br>(2) 64KB RAM using 32KB X 8 device<br>(3) 64KB EPROM using IC 27128. | 10 |
|     | (B) Explain Operating Modes of PIC 8259.  | 10 |
|     |   |    |
| Q4. | (A) Explain 80386 Processor descriptor and it's content.  | 10 |
|     | (B) Explain Superscalar and Branch Prediction for Pentium Processor.  | 10 |
|     |   |    |
| Q5. | (A) Write details note on Multitasking and Protection.  | 10 |
|     | (B) Explain Instructions pairing rules for Pentium Processor.   | 10 |
|     |   |    |
| Q6. | (A) Explain SPARC Processor with block diagram.   | 10 |
|     | (B) Explain with block diagram PIT 8254.  | 10 |

\*\*\*\*\*