

**APPLIED GROUP I : (C) ADVANCED MICROPROCESSORS (8086)**

**Unit I : Introduction to Microprocessor and its Architecture**

Block diagram of microcomputer – microprocessor evolution – architecture of 8086 – status flags – Addressing modes of 8086.

**Unit II : Instruction Set**

Machine language and Assembly language instruction format of 8086 – Instruction set – assembler instruction format – Directives and operators – procedures and macros.

**Unit III : System Bus Structures**

Basic 8086 configurations – Minimum and maximum mode – system by timing – interrupts of 8086 – Interrupt routines – Interrupt priority management.

**Unit IV : multiprocessor Management**

Queue status and lock facility – 8086 based multiprocessing system – coprocessor configuration – closely and loosely coupled configuration.

**Unit V : Simple Assembly Language Programming**

Addition, subtraction, multiplication and division - BCD addition –finding the biggest and the smallest number from the given set of data – block data transfer – interfacing of stepper motor – rolling display.

**Books for Study**

1. Introduction to microprocessor 3<sup>rd</sup> Edn., A.P. Mathur, Tata McGraw Hill, New Delhi 1995.
2. Microprocessors and interfacing – Douglas V.Hall

**Books for Reference:**

1. Microcomputer system 8086/8088 family – Yuchangliv and Clenn A. Gibson, Prentice Hall of India – New Delhi – 1986.
2. Microprocessor Architecture Programming and application – Ramesh Goankar.
3. Microprocessors – M.Rafiquzzaman.