ACHARYA NAGARJUNA UNIVERSITY - UG SYLLABUS

Group: B.Sc **Subject:** MICROPROCESSOR SYSTEM **Year**: III **Sem**: V

Unit-I:

CPU ARCHITECTURE: Introduction to Microprocessor, INTEL-8085(μP) Architecture, CPU, ALU unit, Register organization, Address, data and control Buses, Pin configuration of 8085.

Unit-II:

8086 ARCHITECTURE : Evaluation of Microprocessor, Internal operation, Pin description. Instruction format, Machine language instructions, Instruction Execution timing, Addressing modes.

Unit-III:

INSTRUCTION SET : Data transfer Instruction, Logical Instructions, Arithmetic Instructions, Branch Instructions, Flag Manipulation, Shift and rotate Instruction, Loop Instruction.

Unit-IV:

ASSEMBLY LANGUAGE PROGRAMMING : Programs for Addition, Subtraction, Multiplication, Find the largest and smallest number in an array.

Unit-V:

BASIC 8086 CONFIGURATIONS : Minimum mode and Maximum mode, Interrupt Priority Management I/O Interfaces: Serial Communication interfaces, Parallel Communication, Programmable Timers, Keyboard and display, DMA controller.

Reference Books:

1. Microcomputer Systems the 8086/8088 family – YU-Cheng Liu and Glenn SA Gibson
2. Microcontrollers Architecture Programming, Interfacing and System Design – Raj Kamal Chapter: 15.1, 15.2, 15.3, 15.4.1
3. 8086 and 8088 Microprocessor by Tribel and avatar singh
4. Microprocessors and Interfacing – Douglas V. Hall
5. Microprocessors and Digital Systems – Douglas V. Hall
6. Advanced Microprocessors & Microcontrollers – B.P.Singh & Renu Singh – New Age
7. The Intel Microprocessor – Architecture , Programming and Interfacing- Bary B.Bery
8. Arm Architecture reference manual -Arm ltd.