SUBJECT NO-MA31009, SUBJECT NAME- COMPUTER ORGANISATION

LTP- 3-0-0,CRD- 3

SYLLABUS :-

Prerequisite: voidComputer arithmetic, point representations, introduction to CISC processor architecture, instruction set and addressing modes. Hardware design principles, polling of processors, memory types and interfacing and timing I/O handling, interrupts and DMA and device interfaces-CRT, floppy disk, HDD, optical disk, serial interfaces and data acquisition, operating system concepts and architectural support- privileged mode, software interrupts, memory hierarchy and virtual memory, multi-processors concept, cache memory, pipe lining and introduction, RISC processors, super scalar processors. Resource scheduling problems-their solutions and analysis, storage management, secondary storage, virtual memory, segmentation and paging. Concurrent processes and their synchronization abstractions. Producer â consumer problems, mutual exclusion and dead-lock, properties of concurrent programs, critical section problem, semaphores, test and set, atomic operations, security and recovery.