

SYLLABUS :-

Architecture: Basic organization, fetch-decode-execute cycle, data path and control path, instruction set architecture, I/O subsystems, interrupts, memory hierarchy, overview of pipelined architecture. Operating systems: An overview, process management, user and supervisor modes, process synchronization, semaphores, memory management, virtual memory, file systems, I/O systems. Issues in multiprocessing environments. References 1. David A. Patterson and John L. Hennessy, Computer Organization and Design: The Hardware/Software Interface, Elsevier. 2. Carl Hamacher, Zvonko Vranesic and Safwat Zaky, Computer Organization, McGraw-Hill. 3. John P. Hayes, Computer Architecture and Organization, McGraw-Hill. 4. Avi Silberschatz, Peter Galvin, Greg Gagne, Operating System Concepts, Wiley Asia Student Edition. 5. William Stallings, Operating Systems: Internals and Design Principles, Prentice Hall of India.