- Explain Compile and Go loading scheme. What are advantages and disadvantages of it.
- What is DLL? How dynamic linking can be done with or without import. Explain Dynamic and static linking
- Explain Absolute Loader with suitable example?
- Explain Subroutine Linkage & Overlays?
- With the help of diagram explain General Loading Scheme.
- List different types of Operating Systems? Describe any two of them.
- Differentiate Preemptive and non preemptive scheduling
- Explain the following types of Schedulers.
  - i)Short Term
  - ii)Long Term
  - iii)Medium Term
- Explain seven state process model with diagram? Also explain difference between Five state process model & Seven state process model?
- Draw Gantt chart and calculate Avg. turnaround time, Avg. waiting time for the following processes using SJF non preemptive and round robin with time quantum 0.5 Unit, Processes 4, BT- 2,1,1,1 AT- 10,10,11,12
- Explain Threads, Explain Thread lifecycle with diagram in detail?
- explain with example - What is time quantum and its significance in Round robin scheduling.
- Explain multithreaded mode and Process Control block in detail
- Explain Semaphore, Monitor , Mutex**,** Justify how semaphore is used to solve critical section problem
- Explain Deadlock prevention, deadlock avoidance, deadlock detection, deadlock recovery with example? Explain necessary conditions for occurrence of deadlock .
- Explain hardware approach for Mutual Exclusion with its advantages and disadvantages.
- Write a solution to Reader Writer problem using Semaphore with Readers have priority.
- Explain producer Consumer problem & Dining Philosopher problem with solution?
- What is internal fragmentation? Explain same with suitable diagram/ example. Explain Buddy Systems Fragmentation in detail?
- Consider page sequence 2, 3, 2, 1, 5, 2, 4, 5, 3, 2, 5, 2 and discuss working of following page replacement policies. Also count page faults.(use no. of Frames = 3)
  - i) FIFO ii) LRU
- Write and explain Deadlock Avoidance Bankers Algorithm.
- Compare Paging and Segmentation with the help of example.
- Write a short note on VM with Paging & VM with Segmentation