1. Explain Simple Structure of operating system.
2. What do you mean by kernel?
3. What is the use of modules in operating system?
4. Write a short note on Virtual machines.
5. Write the advantages and disadvantages of using virtual machines.
6. What is the purpose of command interpreter?
7. Define System Program.
8. List system calls related to communication.
9. What do you mean by Graphical User Interface?
10. List and explain system calls related to process and job control.
11. Explain block and character devices.
12.List and explain advantages of multiprocessor system.
13.Write a short note on structure of an Operating System
14. What is Context switch?
15. Explain Process Control Clock (PCB) in detail with the help of diagram.
16. Explain different states of processes.
17. Explain in detail the various process states with the help of diagram.
18. What is CPU Scheduler? State the criteria of CPU scheduling? Explain multilevel feedback queue algorithm.
19. List and explain solution to the critical section problem What is Turn-Around Time?
20. Explain
a. FCFS
b. SJFS
C. Round Robin
d. Priority Scheduling
21. What do you mean by dispatcher?
22. Define waiting time.
23. Describe in detail the 'Dining Philosopher Problem' synchronization problem.
24. Explain in detail the Binary Semaphore.
25. Explain the reader's writer's problem which is a classical problem of synchronization.
26. Explain what is race condition.
27. Explain critical section problem.
28. What is meant by Deadlock?
29. Define Rollback.
30. What do you mean by Request edge?

31. Explain Resource Allocation Graph in detail.
32. Explain different methods for recovery from a deadlock.
33. Explain deadlock prevention strategies.
34. What is page fault?
35. What is Fragmentation? Compare Internal and External Fragmentation.
36. What do you mean by Paging? List the advantages and disadvantages of Paging
37. Define the terms
Logical Address
Physical Address
38. Consider the following page reference string:
9, 2, 3, 4, 2, 5, 2, 6, 4, 5, 2, 5, 4, 3, 4, 2, 3,9,2,3
The numbers of frames are 4.
Calculate the page faults for the following page schemes: i. FIFO
Optimal Find the number of page fault for the following algorithm with 3 frames:
MFU
39. List basic operations on file.
40. Define Absolute path.
41. What is meant by free space management? Define Bit vector and Grouping
42. Explain direct access method in detail.
43. Explain Contiguous Allocation method in detai