Department of Computer Science
Subject:- Operating System
Class:- B.Sc III Sem
Question Bank

UNIT I

1.Explain the structure of operating system. List the characteristics of modern operating system.

2. What is thread ? Explain multithreading in detail.

3. What is CPU scheduling ? Explain round robin scheduling in detail.

4.Define process. Explain the different states of process.

5. Draw structure of operating system and explain ?

List different categories of threads . explain multithreading with suitable diagram.

6. Discuss priority scheduling algorithm with suitable example.

7. Explain role of Long term and short term scheduler.

8. Discuss characteristics of modern operating system.

9. Explain FCFS CPU Scheduling algorithm with suitable example

10.Explain :— (i) User level thread (ii) Kernel level thread.

11.What is scheduler and dispatcher ? Explain role of medium term scheduler.

12. Explain process. List states of process with example.

13.What is CPU Scheduling ? Explain Round Robin Scheduling with suitable example.

14.List and explain characteristics of modern operating system.

15.Consider the following set of processes that arrive at time 0, the length of the CPU burst time given in milliseconds.

Process	Burst time (in milliseconds)

P1	**5**
P2	**24**
P3	**16**
P4	**10**
P5	**3**

Calculate average turnaround time, average response time and average waiting time by FCFS Scheduling.

16.Write short notes on :— (1) Deterministic modelling (2) Queuing analysis. 17.Explain resource allocation graph with example.

UNIT II

1. **Explain deadlock prevention.**
2. **List and explain various methods for deadlock recovery**
3. **Explain concept of segmentation with paging.**
4. **What is Swapping ? Explain swap in and swap out process with well labelled diagram.**
5. **Explain the method of multiple partition memory management.**
6. **Write short notes on :— (1) Relocation (2) Protection.**
7. **Write short notes on :— (1) Digital Signature. (2) Biometric authentication.**
8. **List the various file allocation methods and explain any two.**
9. **Explain scan disk scheduling algorithm with example**
10. **What is Buffering ? Give types of buffering. Explain any two.**
11. **Draw life cycle of thread.**
12. **Explain circular wait condition with example.Explain logical and physical address space.**
13. **Write short note on Record blocking.**
14. **List multiple partition memory management schemes and explain any one with example.**

UNIT III

1. **Explain segmentation with paging.**
2. **Write a note on dynamic loading and dynamic linking.**
3. **Explain :**
   - **(i) Relocation**
   - **(ii) Protection.**
4. **Explain single, double and circular buffering.**
5. **Write short notes on :**
   - **(i) Digital signature**
   - **(ii) Cryptography.**
6. **What is RAID ? Explain its different levels.**

UNIT IV

1. **List different file allocation methods and explain any two.**
2. **Explain short term on medium term scheduler.**
3. **Explain Hold and Wait condition with diagram**
4. **Write short note on shared pages.**
5. **Write short note on physical identification.**
6. **Explain following methods for recovery from Dead lock.**
   - **(i) Process termination. (ii) Resource preemption.**
7. **Write short note on Performance analysis.**
8. **Explain following circumstances in which deadlock may occur. (i) Mutual exclusion (ii) Hold and wait.**
9. **Explain Banker's Algorithm for Dead lock avoidance**
10. **Explain Dynamic Partitions memory management scheme with suitable example.**
11. **Explain segmentation with paging considering suitable example.**
12. **Explain Scan disk scheduling algorithm with**