Operating Systems Sheet- Arsh Goyal with Notes
Watch this video for complete details :

Questions List

1. **What happens when you press the ON button on your laptop?**
2. **What is Operating System ? Why do we need it ?**
3. **Different Types of Operating Systems ?**
4. **Major Differences :**

RAM	ROM
Thread	Process
SRAM	DRAM
PROM	EPROM / EEPROM
Multiprocessing	Multiprogramming
Multitasking	MultiThreading

5. **Difference between a Process and Thread with example.**
6. **What is a Process and Thread ?**
7. **Terms in Process Scheduling - Arrival Time ,Completion Time , Burst Time, Turn Around Time , Waiting Time (WT)**
8. **What is fork()? User and Kernal Threads.**
9. **Scheduling Algorithms :**
     First Come First Serve (FCFS)
     Shortest Job First (SJF)
     Shortest Remaining Time First (SRTF)
     Round Robin (RR) Scheduling
     Priority Based scheduling (Non Preemptive)
     Highest Response Ratio Next (HRRN)
     Multilevel Queue Scheduling (MLQ)

10. **What is Critical Section Problem and Race Around Condition ?**
11. **Mutual Exclusion and Bounded Waiting in Operating Systems?**
12. **What are Semaphores ? Types of Semaphores ?**
13. **What is Mutex ?**
14. **Differences between Mutex and Semaphore . Use Cases as well.**
15. **Deadlock and necessary conditions for deadlock to happen? Detailed.**
16. **How to handle a deadlock?**
17. **Banker's Algorithm and its use case.**
18. **Memory Management**
19. **Partition Schemes - Best Fit , First Fit , Worst Fit**
20. **What is Paging and its need ?**
21. **What is Segmentation and its need ?**
22. **Difference between Paging and Segmentation ?**
23. **Why does a page fault occur?**
24. **Major Page Replacement Algorithms**

25. Definitions : Logical address space , LBA , Spooling , Starvation , Aging ,Virtual Memory
26. FIFO
    Optimal Page Replacement Algorithm
    Least Recently Used (Along with Code) - VV Imp.

27.Disk Scheduling and Terms associated - Seek Time , Rotational Latency, Transfer Time , Disk Access Time ,Disk Response Time.
28. Disk Scheduling Algorithms - FCFS , SSTF , SCAN , CSCAN , LOOK , CLOOK
29. What is Thrashing ?

Resources to Prepare :

Detailed Book Recommendation : GALVIN - Wiley

1.Bed Time Stories with OS :
https://drive.google.com/file/d/1BMtW2e2Lm-ngAhAssicyN4lFq5lnLJ6j/view?usp=sharing

2. GFG Last Minute Notes :
https://www.geeksforgeeks.org/last-minute-notes-operating-systems/

3. Video PlayList :
https://youtube.com/playlist?list=PLxCzCOWd7aiGz9donHRrE9l3Mwn6XdP8p

4. InterviewBit Document :
https://drive.google.com/file/d/1-2aR5Jq1YVAB8hrrsdFxTJqGExgop8Ms/view

5. Handwritten notes for College Exams :
https://drive.google.com/file/d/1tuK9UFCXtVDyfYyTKzhOcOoTt8wf2H5y/view?usp=sharing

https://drive.google.com/file/d/1Kk_LC3EcOdDfRGulZ8Ow1ocJa5ejBl9D/view?usp=sharing