

**OPERATING SYSTEM ORGANIZATION
AND UNIX**

1. Write the difference between the following :
 - (i) Batch processing and Real time processing. 7
 - (ii) Multi-programming and Multi-tasking. 6
 - (iii) Single user & multiuser operating system. 7
2. What is Client-server architecture for operating system? How is it different from the other operating systems structure ? Write various advantages of client-server models. 20
3. What do you mean by CPU scheduling ? Explain any four CPU scheduling policies by giving suitable example. 20
4. Explain the following :
 - (i) Memory management techniques. 10
 - (ii) Virtual memory. 10
5. Explain various Page replacement algorithms. 20
6. What is Direct Memory Access (DMA) ? Also describe the working of DMA. 20
7. Explain the following disk scheduling algorithms :
 - (i) FCFS.
 - (ii) SSTF.
 - (iii) SCAN.
 - (iv) LOOK. 20
8. Explain various File Access methods. 20
9. Explain the term Authentication ? Discuss Biometrics techniques and Encryption. 20
10. Explain Benstein condition and Race condition. Explain how to avoid race condition. 20