1. **MCQ**
2. **Operating systems**
3. What is an Operating System? What are its basic functions? (oct-2023)
4. **System Calls**
5. What are the various system calls that you know?
6. **Process**
7. What is context switching in an operating system? (oct-2023)
8. What is upper context switching? (oct-2023)
9. What is lower context switching? (oct-2023)
10. What is a process? Difference between process and program.(aug-2018)
11. How do you create child processes in Linux?
12. How will you create a new process?
13. If you create a new process and declare a global variable a = 3 if you change the value of ‘a’ in the child process, will it get a change in the parent process?
14. **IPC**
15. What are the different IPC mechanisms?
16. Why do we need IPC?
17. **Signals**
18. **Sockets**
19. **Threads**
20. What is a thread? Why do we need threads? (aug-2018)
21. How are threads different from the process?
22. What is multithreading? (aug-2018)
23. What is mutex and what is a semaphore? Also, tell the difference between them.
24. Why do we need synchronization?
25. How will you create a thread?
26. How is concurrency achieved in threads?
27. Which is better? Using threads on single-core or multicore processors?
28. What is parallelism?
29. **Networking**
30. What is CDMA? Explain.

### What is the OSI model and what are its benefits? (oct-2023)

### What are the seven layers of the OSI model and explain their basic functions? (may-2018)(aug-2018)(oct-2023)

1. Explain TCP and UDP protocols.
2. **Process and Memory Management**
3. What is scheduling? Explain its types.