**Inter Process communication**

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1. What Is Ipc? What Are The Various Schemes Available?

2. difference between pipe and named pipe with 10 points?

3. Write a program illustrating the example of pipe and fifo.

4. what is size of pipe , fifo , message queue, shared memory, semaphore ?

5. write a program to verify size of pipe ?

6. What do you mean by “unicast” and “multicast” IPC?

7. How message transmits through pipe ,fifo,message queue and shared memory. Is there any role of kernel buffer ?

8. difference among pipe,named pipe, message queue and shared memory.

9. why shared memory was introduced ?

10. How do you control IPC mechanism ?

11. what is the role of IPC\_RMID , IPC\_SET and IPC\_STAT ?

12. Capture the SIGCHLD signal when any child exit ?

13. capture the SIGPIPE using c code?

14. write a program illustrating the example of SIGCONT, SIGSTOP ?

15. what are signals that can not be captured ?

16. Explain deadlocks and timeout. what are conditions required for deadlock?

17. what is the role of ftok() in IPCs?

18. when should we select semaphore and mutex ?

19. How do you create binary semaphore and counting semaphore ? Illustrate it with program .

20. What are events? What is event synchronization?

21. Differentiate between synchronous and asynchronous communication?

22. How any system call works? Take sleep() for reference.

What happens in low level.

23. How to add system call in kernel ?

24. How system call causes change from user to kernel space

25. Difference between Mutex and a Binary-Semaphore

26. Can a mutex be locked more than once?

27. Can a thread acquire more than one lock (Mutex)?

28. Explain Binary and Counting Semaphore with an Example?

29. What happens if a non-recursive mutex is locked more than once.

30. What we mean by “thread blocking on mutex/semaphore” when they are not available?

31. Is it necessary that a thread must block always when resource is not available?

32. Can we acquire mutex/semaphore in an Interrupt Service Routine?

33. why shared memory is fastest mechanism in IPC

35. name of structure which keeps the information about shared memory, message queue in the kernel ?

36. can any thread join the main thread after cancel ? Illustrate with a example.

37. what does shmat function does?