

1.	<p>A. Write a program to read n characters and store them into the specified file and redirect the output to file using dup2 function.</p> <p>B. Write a program to create client and server communication, where message sent by the client should be received by the server (Using FIFO System call).</p>
2.	<p>A. Write a program to display the file content in reverse order using lseek system call.</p> <p>B. Write a program to implement client - server communication using pipes. Client should send a string to the server and it should change the first character of the string to uppercase and sends it back to client</p>
3.	<p>A. Write a program to display various details of a file using stat structure(At least 5 fields) .</p> <p>B. Write a program to demonstrate inter process communication using Message Queue. One process should send the name of the file and the other process should return its contents.</p>
4.	<p>A. Write a program to create a co-process which performs addition of two numbers.</p> <p>B. Write a program to implement ls -li command which list the files in a specified directory. Your program should Print 5 attributes of files.</p>
5.	<p>A. Write a program to Remove an empty files from the given directory.</p> <p>B. Write a program using <i>sigaction</i> system call which calls a signal handler on <i>SIGINT</i> signal and then reset the default action of the <i>SIGINT</i> signal</p>
6.	<p>A. Write a program to Copy access and modification time of a file to another file using utime function.</p> <p>B. Write a program to implement reader-writer problem using semaphore. The reader process reads a value that is written by writer process and both of them execute in mutual exclusion.</p>
7.	<p>A. Write a program to check whether user is valid or not</p> <p>B. Write a program to demonstrate inter process communication using Shared memory. One process should enter all the alphabets into the shared memory and other process should read it.</p>
8.	<p>A. Write a program to illustrate effect of setjmp and longjmp functions on register and volatile variables.</p> <p>B. Write a program to setup a timer and setup handler for the timer using fork (or exec) to check who gets the timer signal</p>
9.	<p>A. Write a program to:</p> <ol style="list-style-type: none"> Create a zombie process Create an orphan process <p>B. Write a program that executes an interpreter file, which calls another program to display the arguments that is passed in the exec function.</p>
10.	<p>A. Write a program in which the parent displays uppercase characters A-Z and child displays lowercase characters a-z with a delay of max of 2 seconds between each character. Run the program repeatedly and see if there is racing.</p> <p>B. Write a program (use signal system call)</p> <ol style="list-style-type: none"> which calls a signal handler on SIGINT signal and then reset the default action of the SIGINT signal

	ii. Which ignores SIGINT signal and then reset the default action of SIGINT signal
11.	<p>A. Write a program such that it initializes itself as a daemon Process.</p> <p>B. Write a program to implement reader-writer problem using semaphore. The reader process reads a value that is written by writer process and both of them execute in mutual exclusion.</p>
12.	<p>A. Write a program to register the exit handlers and demonstrate their order of invocation</p> <p>B. Write and execute Unix system program to create co-process which performs Concatenation of two strings.</p>

Note: Execution : 25 Marks (A: 10M, B:15M)
Write up : 10 marks
Quiz : 15 marks
Change of question : -5 marks