

**2022**

**MCA**

**2nd Semester Examination**

**ADVANCED OPERATING SYSTEM LAB.**

**PAPER—MCA-297**

**(Practical)**

*Full Marks : 100*

*Time : 4 Hours*

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

Answer any two questions.

2×40

1. Demonstrate using a program how can you fork a new child process that displays list of files where parent process should wait for the completion of child.
2. Implement LRU page replacement algorithm using a shell program.

3. Write a shell program to find the reverse of a number.
4. Write a shell program to check a string is palindrome or not.
5. Using a shell program, implement FCFS CPU scheduling algorithm.
6. Write a shell program to check a file is exist or not and if it is exists then display its type.
7. Write a program to create a new process using `system()` that displays the processes running on your system.
8. Demonstrate using a program how can you duplicate a Program's Process using `fork()`.
9. How can you create a Zombie Process? Illustrate it using a program.
10. Write a program to print process id of a process and its parent process id also. Execute the program three times and write its output.

[PNB + Viva - 20]

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