

**MCA 2nd Semester Examination, 2023**

**MCA**

*( Advanced Operating System Lab. )*

*( Practical )*

PAPER – MCA-297

*Full Marks : 100*

*Time : 4 hours*

*The figures in the right hand margin indicate marks  
Candidates are required to give their answers in their  
own words as far as practicable*

Answer **two** questions selecting it by **lucky draw** :  
35 × 2

1. How can you create a Zombie Process ? Illustrate it using a program.
2. Write a shell program to find the reverse of a number.

*( Turn Over )*

3. Demonstrate using a program how can you duplicate a Program's Process using fork ( ).
4. Write a shell program to check a file is exist or not and if it is exist then display its type.
5. 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.
6. 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.
7. Implement FIFO page replacement algorithm using a shell program.
8. Write a shell program to check a string is palindrome or not.

9. Implement SJF CPU scheduling algorithm using a shell program.
10. Write a program to create a new process using system () that displays the processes running on your system.

Viva-voce – 20 Marks

Laboratory Note Book – 10 Marks

**Distribution of Marks**

Program code	:	$2 \times 20 = 40$ Marks
Execution of program	:	$2 \times 10 = 20$ Marks
Results	:	$2 \times 5 = 10$ Marks
Viva-voce	:	20 Marks
Laboratory Note Book	:	10 Marks

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Total	:	100 Marks
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