MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA- 8
(Affiliated to Krishna University, Machilipatnam)
SYLLABUS

Subject: Computer Science **Semester: IV**
Course Title: Operating Systems using Linux -Practical **Course Code: 20CSP5OS42**
No of hours: 30 **LTP: 002** **Credits: 2**

Objectives

- To provide necessary skills for developing and debugging programs in UNIX environment.
- To Introduce basic Unix commands, system call interface for process management, inter-process communication and I/O in Unix

Course Outcomes

CO1: Apply various Linux commands on a standard UNIX/LINUX Operating system.
CO2: Apply shell programming on UNIX/LINUX OS.
CO3: Develop skills in shell programming.

List of practicals

Following exercises can be performed using Linux or UNIX

1. Usage of following commands:
   ls, pwd, tty, cat, who, who am I, rm, mkdir, rmdir , touch, cd. cal, cat(append), cat(concatenate), mv, cp, man, date. chmod, grep, tput (clear, highlight), bc.
2. Write a shell script to check if the number entered at the command line is prime or not.
3. Write a shell script to modify the “cal” command to d isplay calendars of the specified months.
4. Write a shell script to accept a login name. If not a valid login name display message – “Entered login name is invalid”.
5. Write a shell script to display date in the mm/dd/yy format.
6. Write a shell script to display on the screen sorted output of “ who” command along with the total number of users.
7. Write a shell script to display the multiplication table any number,
8. Write a shell script to compare two f iles and if found equal asks the user to delete the duplicate f ile.
9. Write a shell script to f ind the sum of digits of a given number.
10. Write a shell script to merge the contents of three f iles, sort the contents and then display them page by page.
11. Write a shell script to f ind the LCD (least common divisor) of two numbers.
12. Write a shell script to perform the tasks of a basic calculator.
13. Write a shell script to f ind the power of a given number.
14. Write a shell script to f ind the factorial of a given number.
15. Write a shell script to check whether the number is Armstrong or not.
16. Write a shell script to check whether the file has all the permissions or not.

17. Program to show the pyramid of special character “*”.
18. Simulate Indexed file allocation strategies
19. Write a program to Priority CPU Scheduling algorithm
20. Simulate Paging Techniques of memory management.

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Practical-Scheme of Valuation

Time: 3 Hrs. **Max. Marks: 50**

Practical	**Marks**
Program Writing	15 M
Program Execution	15 M
Viva	10 M
Practical Record	10 M
Total	**50 M**