UNIX AND SHELL PROGRAMMING

(BCAC 691)

LAB ASSIGNMENTS

BCA (III YEAR VI SEM)

DEPARTMENT OF COMPUTER APPLICATIONS

**CONTAI COLLEGE OF LEARNING & MANAGEMENT SCIENCE**

**Affiliated to: MAKAUT, College Code: 340**

**Purba Medinipur, West Bengal-721401**

**NAME:**

**UNIVERSITY ROLL NO:**

**UNIVERSITY REGISTRATION NO:**

**SESSION:**

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| **Assign**  **ment** | **SL No** | **List of Programs** | **Teacher Sign.** |
| **Assignment – 1** | 1 | Display the calendar for the month of February 2022. |  |
| 2 | Find out the current system date and time in UNIX. |  |
| 3 | Display the message "Hello, world!" in the terminal. |  |
| 4 | Perform a calculation such as adding 5 and 3, what command would you use? |  |
| 5 | Change your current password in UNIX. |  |
| 6 | How can you determine who is currently logged into the system? |  |
| 7 | What command would you use to retrieve system information such as the operating system name and version? |  |
| 8 | If you want to know the file name of the terminal connected to the standard input, what command would you use? |  |
| 9 | list the contents of a directory in UNIX? |  |
| 10 | Display the file permissions of a specific file in UNIX? |  |
| 11 | Copy a file named "example.txt" to another directory. |  |
| 12 | Create a new directory named "documents" in UNIX. |  |
| 13 | Move a file named "report.txt" to another directory. |  |
| 14 | Remove a file named "temp.txt" from the filesystem |  |
| 15 | Display the contents of a text file named "sample.txt" in the terminal. |  |
| 16 | Search a specific word in a text file named "document.txt". What command would you use for this task? |  |

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| **Assignment – 2** | 1 | How can you display the pathname of the current directory in UNIX? |  |
| 2 | How do you change the current directory in UNIX? |  |
| 3 | How can you create a new directory in UNIX? |  |
| 4 | How do you remove a directory in UNIX? |  |
| 5 | 1. Show the inode number of a file named file4.txt |  |

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| **Assignment – 3** | 1 | Unix Commands : who, pwd, mkdir, rmdir, cd, ls, touch, cp, mv, rm. |  |
| 2 | chmod, cal, file, sort, grep, man, lpr, passwd, clear, history. |  |
| 3 | cat, date, echo, ftp, head, more, tail, tar, wc, find. |  |
| 4 | awk, nano, gzip, unzip, ifconfig, mount, host, wait, sleep. |  |
| 5 | 1. sed, shutdown, kill. |  |

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| **Assignment – 4** | 1 | 1. lab\_directory/   ├── file1.txt  ├── file2.txt  ├── sub\_directory/  ├── file3.txt  └── file4.txt   * Make this file and directory. * List the attributes (permissions, ownership, size, modification time) of all files and directories in the lab\_directory. * Change the permissions of file3.txt to -w-r----x using absolute permission methods. |  |
| 2 | 1. Create a new user ‘cobra’ and create a new group ‘nasma’. |  |
| 3 | 1. Change the ownership of file2.txt to user ‘cobra’ and group ‘nasma’. |  |
| 4 | 1. Create a soft link under subdirectory, named ‘intel\_soft’ for the file india.txt which present in home/user. |  |
| 5 | 1. Create a hard link under subdirectory, named “cclms\_hard” for the file india.txt which present in home/user. |  |
| 6 | 1. Check the current umask value of your user.   Change the umask value to 044.  Create a new file named umask\_test.txt and verify its permissions. |  |
|  | 7 | 1. Modify the access times **2023 september 05 09:29min 35sec** of files using touch command. |  |

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| **Assignment – 5** | 1 | How would you display the attributes of processes? |  |
| 2 | Write a C program to create child process and allow parent process to display parent and the child to display child on the screen? |  |
| 3 | Write a C program to create zombie process? |  |
| 4 | Write a C program to illustrate how an orphan process is created? |  |
| 5 | Write a C program that illustrate communication between two process using unnamed pipes? |  |
| 6 | Write a C program that receives a message from message queue and display them? |  |

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| **Assignment – 6** | 1 | Write a shell script to display date and time? |  |
| 2 | Write a shell script to display your name? |  |
| 3 | Write a shell script to add two number? |  |
| 4 | 1. Write a shell script to multiply two number? |  |
| 5 | 1. Write a shell script to create a for loop? |  |
| 6 | Write a shell script to calculate factorial? |  |
| 7 | 1. Write a shell script to swap two numbers? |  |
| 8 | 1. Write a shell script to create a function? |  |
| 9 | 1. Write a shell script to create an array? |  |
| 10 | 1. Write a shell script to count the length of a string? |  |
| 11 | 1. Write a shell script to concatenate strings? |  |
| 12 | 1. Write a shell script to read a file? |  |
| 13 | 1. Write a shell script to delete a file? |  |
| 14 | 1. Write a shell script to append to a file? |  |
| 15 | 1. Write a shell script program to print the current process id? |  |