

**ST. ANN'S COLLEGE OF ENGINEERING & TECHNOLOGY: CHIRALA
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

ASSIGNMENT

COURSE NAME: UNIX PROGRAMMING
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Year & Sem/Section: III-I-SEM 'A & B'

UNIT-1

1. What is Unix? Explain about its Salient features.
2. What are the components of Unix explain about each component. (or)
Explain the architecture of Unix OS.
3. Explain how a user can access the Unix environment.
4. What is an Unix command. What are the different types of Unix commads.
5. Explain the following commands in detail.
(a) echo (b) tput (c) tty (d) who (e) bc
6. Explain the following commands in detail.
(a) uname (b) date (c) cal (d) calendar (e) spell, ispell
7. Explain the following commands in detail.
(a) passwd (b) lock (c) banner (d) cat
8. What is meant by command substitution. How multiple commands are given to shell.
9. what is meant by alias in for commands.
10. Explain about Unix History.

UNIT-2

1. What is meant by file. Explain about the file related commands in Unix.
2. What is in a file (or) what are different file types.
3. Explain about the directories and filenames in Unix.
4. Explain different file permissions in Unix.
5. Explain different file attributes of I-node of a file.
6. Explain the directory hierarchy of Unix.
7. Write syntax and give an example of chmod commad
8. Write syntax and give an example for (a) chown (b) chgrp

UNIT-3

1. Explain about command line structures of shell.
2. What are the different meta characters of shell explain them.
3. How to create new commands in shell explain with an example.
4. What is a command line argument. Write and explain about positional parameters
5. How a program output is given as argument to a command explain with an example.
6. What is a shell variable. How many types of shell variables are their explain about environmental variables of Shell.
7. What is I/O redirection explain with an example.
8. Explain different loops in shell.

UNIT-4

1. What is the purpose of grep command explain it with all options.
2. Explain about egrep and fgrep commands.

3. Print the 10 most frequent words in input using filters.
4. What is the Purpose of *sed* and explain the commands in *sed*.
5. (a) list all files in a directory that are newer than a specified one using *sed*.
(b) lists all the files older than the named one
(c) How Newlines can be inserted with *sed*,
(d) select the user names and login times using *sed*.
(e) Display the login name of user using *sed*.
6. What is the purpose of *awk* . explain *awk* built in variables.
7. (a) print the name and time of login sorted by time using *awk*.
(b) print line numbers in a field four digits wide,
(c) Explain about *awk* patterns
8. Explain control statements of *awk*
9. Explains Arrays ,Associate arrays of *awk*.
10. Implement the following task using *awk*: *The task is to have the system send you mail every morning that contains a reminder of upcoming events.*

UNIT-5

1. What are system variables? Mention some of the system variables along with typical or default values stored in them.
2. With the aid of an illustration, discuss the *read* command. Also discuss what happens when either less or more number of values are given to its arguments.
3. What are the different ways of using a *for* loop in a shell script?
4. What is the here document? Explain with an example.
5. Explain how arithmetic can be performed with the *expr* command.
6. Discuss the various types of tests that could be performed using the *test* command.
7. (a) Write a shell script that accepts a filename as argument and displays its creation time if the file exists and if it does not exist, an appropriate message.
(b) A shell script that accepts two integers as its arguments and computes the value of first number raised to the power of the second number.
(c) A shell script that deletes all lines containing a specified word in one or more files supplied as arguments to it.
8. Explain about *Eval* command, *Exec* command, *Exit* command
9. (a) A shell script that displays a list of all the files in the current directory to which the user has read, write and execute permissions.
(b) A shell script that accepts a list of filenames as its arguments, counts and reports the occurrence of each word that is present in the first argument file on other argument files.
10. Write about *set* command, *continue*, *break* statements.

UNIT-6

1. Explain about Job Control Commands
2. Explain (a) *trap* (b) *stty* (c) *kill* commands
3. Why *ps* command is used explain with example.
4. Explain the process creation in Unix.
5. How the processes can be run in foreground and background , how they switches from *bg*
6. What are different types of processes explain them.
7. Explain *nohup* , *nice* commands
8. What is a Process, explain parent and child process in Unix os