**UNIT-3- Assignment- LINUX/Unix Files**

1. (a) Differentiate between advisory locking and mandatory locking.

(b) Explain the following system calls related to linking link( ), unlink( ) and symlink( ).

2. (a) Define a system call? Explain how the system call differs from that of the

library functions.

(b) What is the purpose of dot and dot dot directories in the file system?

(c) What are the drawbacks of using a symbolic link instead of a hard link.

3. Explain the following system calls with an example.

a) creat( ) b) write( ) c) stat( ) d) fcntl( )

4. Differentiate between the following terms:

(a) getc( ) Vs fgetc( ) (b) stat( ) Vs fsat( )

(c) printf( ) Vs fprint( ) (d) scanf( ) Vs fscanf( ).

5 a) Differentiate between the three stat functions with examples.

(b) Write a program to print the type of a file for each command line argument.

6. What is file mode creation mask? Explain how to set it for a process. What

happens if the file mode creation mask is set to 777(Octal) value?

7(a) Discuss the data structures that support the unix files in detail.

(b) How a file can be described in Unix environment? List and explain about the

various types of files in Unix.

8 (a) Briefly explain about stream errors.

(b) Write and explain a function that sets one or more of the file status flags for a descriptor.

9. . Explain how the fcntl ( ) system call is used for changing the properties of a file.

What are the status flags that are associated with fcntl( )? Illustrate fcntl( ) with

a program.

10. Write about File and Directory maintenance system calls? (Give syntax & examples).

11 Write a C program that counts the number of blanks in a text file

a. Using standard I/O b. Using system calls

12 a) Describe the characteristics of Unix File System.

b) Discuss clearly the Low Level File I/O System Calls.

c) Explain dup() and its importance.

12 a) Describe the file system structure and different file types in Linux system.

b) Compare hard links with soft links.

13 Explain various system calls relate to directory management.

14 Explain about the following system calls:

a) open( ) b) seek( ) c) read( ) d) link( ).