**Shell Programming**

(i) Write a shell program which displays the last 3 lines of a file (specified on the command line), preceded by the file name.

(ii) Write a shell program which accepts a string from terminal, echoes a suitable message if it doesn’t have at least 10 characters.

(iii) Write a shell function size () which lists the total size of the files given as arguments.

(iv) Write a shell program to print the names of the files in a given directory in ascending order (directory name specified as argument).

(v) Write a shell program to find the frequency of occurrence of a specified word, in a specified file (file and word specified as command line argument ex. $f.sh a.txt main).

(vi) Write a shell program to display the values of common environment variables in Linux and append new path to PATH environment variable; path taken as an input from user.

(vii) Write a shell program to find out the factorial of given number.

(viii) Write a shell program to find the ‘type’ of a given file (readable, writable, executable, and directory).

(ix) Write a shell program to accept the percentage marks of the students and then display the division. Use case statement for the same.

(x) Write a shell program to copy the contents of an array to another array and display the same