2022

Computer Science

[P.G.]

(CBCS)

(M.Sc. Third Semester End Examination-2022)

PAPER-391

Operating System Lab

Full Marks: 50 ***Time: 02 Hrs***

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

MODULE –I (Operating System Lab)

1.Answer any one questions of the following: **1x15= 15**

i) Write a shell program to build a simple calculator.

ii) Write a C program to print process id of a process and its parent process id also.

iii) Write a C program to demonstrate semaphore.

iv) Write a shell program to convert a Decimal number into its Binary equivalent.

v) Write a C program to create a new process using system ( ) that display list of files.

vi) Write a C program to creat thread.

vii) Write a C program to create two process and create communication between them.

viii) Write a shell program to find a string palindrome or not.

ix) Write a shell program to find a first 15 Fibonacci number

x) Write a shell program to find GCD of two number

xi) Write a shell programming to find the Position of Substring in Given String.

xii) Write a shell script to find out the unique words in a file and also count the occurrence of each of these words. We can say that the under consideration contains many lines, and each line has multiple words.

xiii) Write a shell script to reverse the list of strings and reverse each string and reverse the list of string and reverse the list of string and reverse each string further in the list.

MODULE –II (Compiler Design Lab)

2. Answer any one questions of the following: 1x15=15

i) Write a LEX program to check a number positive, negative or zero.

ii) Write a LEX program to find simple and compound statement.

iii) Write a LEX program to check whether a given string is a valid ID, or keyword or RELOPE.

iv) Write a LEX program to find total vowel and Consonant from input.

v) Write a LEX program to replace all occurance of "vidya" with "RAMA" and "SAGAR" with "Sita".

vi) Write a LEX program to count the digit of a number.

vii) Write a LEX program to count all th instance of "SHE" and "HE" including the instance of "HE" that are included in "SHE".

viii) Write a LEX program to count the number of words in a sentence.

ix) Write a LEX program to count all the occurance of 'rama' and 'sita' in a given file and eliminate them.

x) Write a program in LEX/YACC to check whether a given string is a valid ID (Identifier), Keyword, RELOP (Relational Operator) or others.

xi) Write a program in LEX/YACC to check whether a sentence of English language is grammatically correct or not.

xii) Write a program in LEX/YACC which count the no of characters, total no of vowels and total no of punctuation marks in a paragraph.

xiii) Program to recognize a valid arithmetic expression and to recognize the identifiers and operators present. Print them separately.

Viva voice – 10 marks

Practical notebook – 10 marks.
