Department of

Programming for problem solving Lab (KCS- 151P)

Session: 2021-22

Submitted By: **Submitted To:**

Student's name: **Faculty name:**

Roll no: **Designation:**

Branch/Sec:

INDEX

S. No	Exp. no	Name of Experiment	Date of Experiment	Date of Submission	Signature of Faculty with date	Course Outcome	Remarks
Lab 1	1	Write a program to calculate the area of triangle using formula at=√s(s- a)(s-b)(s-c)					
	2	Basic salary of an employee is input through the keyboard. The DA is 25% of the basic salary while the HRA is 15% of the basic salary. Provident Fund is deducted at the rate of 10% of the gross salary (BS+DA+HRA). Program to calculate the net salary.					
	3	Write a program to determine the roots of quadratic equation.					
	4	Write a program to find the largest of three numbers using nested if else.					
	5	Write a program to receive marks of physics, chemistry & maths from user & check its eligibility for course if a) Marks of physics > 40 b) Marks of chemistry > 50 c) Marks of math's > 60 d) Total of physics & math's marks > 150 or e) Total of three subjects marks > 200					
Lab 2	6	Write a program to find the value of y for a particular value of n. The a, x, b, n is input by user					

		if n=1 y=ax%b if n=2 y=ax2+b2 if n=3 y=a-bx if n=4 y=a+x/b					
	7	Write a program to construct a Fibonacci series upto n term.					
	8	Write a program to find whether the number is Armstrong number.					
	9	Write a program to generate sum of series 1!+2!+3!+ n!					
	10	Write a program to find the sum of following series 1-X1/1!+X2/2!-…………Xn/n!.					
Lab 3	11	Write a program to print the entire prime no between 1 and 300.					
	12	Write a program to print out all the Armstrong number between 100 and 500.					
	13	Write a program to draw the following figure: 3 2 1 2 1 1 * * * * * *					
	14	Write a program to receive a five-digit no and display as like 24689: 2 4 6 8 9					

Lab 4	15	Write a function that return sum of all the odd digits of a given positive no entered through keyboard.					
	16	Write a program to print area of rectangle using function & return its value to main function.					
	17	Write a program to calculate the factorial for given number using function.					
	18	Write a program to find sum of Fibonacci series using function.					
	19	Write factorial function & use the function to find the sum of series S=1!+2!+ n!.					
Lab 5	20	Write a program to find the factorial of given number using recursion.					
	21	Write a program to find the sum of digits of a 5 digit number using recursion.					
	22	Write a program to calculate the GCD of given numbers using recursion.					
	23	Write a program to convert decimal number in to binary number.					
	24	Write a program to convert binary number in to decimal number.					
	25	Write a program to delete duplicate element in a list of 10 elements & display it on screen.					
	26	Write a program to merge two sorted array & no element is repeated during merging.					

Lab 6	27	Write a program to evaluate the addition of diagonal elements of two square matrixes.					
	28	Write a program to find the transpose of a given matrix & check whether it is symmetric or not.					
	29	Write a program to print the multiplication of two N*N (Square) matrix.					
Lab 7	30	Write a program in C to check whether the given string is a palindrome or					
	31	Write program to sort the array of character (String) in alphabetical order like STRING in GINRST.					
	32	Write a program to remove all the blank space from the string & print it, also count the no of characters.					
	33	Write a program to store the following string "zero", "one" ---- Print the no in words, given in figure as 3205.					
Lab 8	34	Write a program to compare two given dates. To store a date uses a structure that contains three members namely day, month and year. If the dates are equal then display message equal otherwise unequal.					
	35	Define a structure that can describe a hotel. It should have the member that includes the name, address, grade, room charge and number of rooms. Write a function to print out					

		hotel of given grade in order of room charges.					
	36	Define a structure called cricket with player name, team name, batting average, for 50 players & 5 teams. Print team wise list contains names of player with their batting average.					
Lab 9	37	Write a c program to copy & count the character content of one file says a.txt to another file b.txt.					
	38	Write a program to take 10 integers from file and write square of these integer in other file.					
	39	Write a program to read number from file and then write all 'odd' number to file ODD.txt & all even to file EVEN.txt.					
	40	Write a program to print all the prime number, between 1 to 100 in file prime.txt.					
	41	Write the following C program using pointer: a) To sort the list of numbers through pointer b) To reverse the string through pointer.					
Lab 10	42	Write a program to find the largest no among 20 integers array using dynamic memory allocation.					
	43	Using Dynamic Memory Allocation, Write a program to find the transpose of given matrix.					
	44	Write a program to find the					

		factorial of given number using command line argument.					
	45	Write a program to find the sum of digits of a 5 digit number using command line argument.					