Practical work:

UNIT		TOPIC/DEFINITION	HOURS
I		**Using input and output statements, Operators**	**4**
	1	Write a program to print the address of INDUS.	
	2	Write a program to perform basic arithmetic operators on given two numbers.	
	3	Find the area and perimeter of square and rectangle and circle. Input the side(s) through the keyboard. (use PIE as symbolic constant)	
	4	Write a program to swap values of 2 variables (i) with extra variable and (ii) without using an extra variable.	
	5	Write a program to print the ASCII value of a given character.	
	6	Write a program to enter the integer number and convert it into Rs and Paisa.	
	7	Write a program to enter two numbers. Make the comparison between them with conditional operator. If the first number is greater than second perform multiplication otherwise division operation.	
	8	Write a program to enter the temperature in Fahrenheit and convert it to Celsius.[C = ((F-32)*5)/9]	
	9	Write a program to calculate simple interest.	
	10	Write a program to enter marks of five subject of a student and calculate its average, percentage.	
II		**Using conditional statements**	**4**
	1	Write a program to find the maximum of (i) two integer values and (ii)three integer values.	
	2	Write a program to check whether the given character is a vowel of not.	
	3	Write a program that reads a number from 1 to 7 and accordingly it should display MONDAY to SUNDAY (if- else if).	
	4	Write a menu driven program to perform the arithmetic operations.	
	5	Write a program to print number of days in a given month using switch statement. The program requires month number (between 1 to 12) as an input and then displays number of days in that month.	
	6	Write a program to check whether a given value is even or odd.	
	7	Write a program to calculate total salary of an employee.	
		total salary = basic + da + hra + ta. da = 50% of basic. **Basic** **hra** **ta** <6000 400 100 6001>= &<10000 1400 300 >=10000 2400 700	
III		**Using control statements**	**5**
	1	Write a program to print 1 to 10 numbers using while loop.	
	2	Write a program to read any 7 numbers and print the average value using for loop.	
	3	Write a program to reverse a given integer number.	
	4	Write a program to print Fibonacci series of given number.	
	5	Write a program to find factorial of a number.	

	6	Write a program to check whether a number is a Krishnamurthy number or not. Krishnamurthy number is one whose sum of factorial of digits equalsthe number. Example:145 1! + 4!+ 5! = 1 + 24 + 120 = 145	
	7	Write a program to check whether the number is Armstrong or not. Example:153----$1_3 + 5_3 + 3_3 = 1 + 125 + 27$ 153	
	8	Write a program to list all prime numbers within given range.	
	9	Write a program to draw following patterns: * 1 5 4 3 2 1 A ** a b 4 3 2 1 A B *** 1 2 3 3 2 1 A B C **** a b c d 2 1 A B C D ***** 1 2 3 4 5 1 A B C D E 1 1 121 01 12321 1 01 1234321 0 1 01	
IV	**Array And Strings**		**6**
	1	Write a program to read 10 integers in an array. Find the addition of all elements.	
	2	Write a program to find number of odd and even elements from the 1- D array.	
	3	Write a program to reverse the elements of array and store it in another array.	
	4	Write a program to sort elements of array.	
	5	Write a Program to print Addition of two matrices.	
	6	Program to remove duplicate numbers from a list of numbers and print the list without duplicate numbers.	
	7	Write a Program to print Multiplication of two matrices.	
	8	Read the marks of five subjects obtained by five students in an examination. Display the top two student's codes and their marks.	
	9	Write a program to insert an element in an array at specified position.	
	10	Write a program to find the length of a string.	
	11	Write a program to reverse the string.(without inbuilt Function)	
	12	Write a program to convert a string in to lower case and upper case.	
	13	Write a menu driven program for the implementation of all build-in string functions.	
	14	Program to extract n characters starting from m in a given string. (String, n and m should be provided as inputs).	
	15	Find out occurrence of each character in a given string.	
V	**Structure & Union**		**3**
	1	Write a program to define structure with tag state with fields state name, number of districts and total population. Read and display the data.	
	2	Write a program to create a structure of 5 student's roll_no and name and display the records. Use array of structure	

	3	Write a program to create structure of bank with accno, holder_name and balance and display them for n holders whose balance is less than 5000.	
	4	Write a program to create union of student's roll_no and name and display the records.	
VI	**Pointers & Functions**		**8**
	1	Write a program that demonstrates the use of address of (&) and pointer (*) operator.	
	2	Write a program to read and display values of an integer array. Allocate space dynamically for the array.	
	3	Write a program to display the content of 1-D array using pointer.	
	4	Write a program to sum given two integer numbers using function.	
	5	Write a program using function to count the area of circle, triangle, rectangle and square.	
	6	Write a program using user defined function even _odd. With argument and check whether the no is even or odd.	
	7	Write a program using function with array, takes input of five subject's marks and count the percentage and display result.	
	8	Write a function which accepts a character array as argument from the user. The function should convert all the lowercase characters into uppercase case	
	9	Write a function using pointer parameter that calculate maximum element from given array of integer number.	
	10	Write a program that demonstrates call by value and call by reference concept in function argument.	

Lecture/ Tutorial timings

Lecture and Lab as per faculty time table.

Attendance Requirements

The University norms states that it is the responsibility of students to attend all lectures, tutorials, seminars and practical work as stipulated in the course outline. Minimum attendance requirement as per university norms is compulsory for being eligible for semester examinations.

Text books

1. Programming in ANSI C by Balagurusamy, publisher: TMH

Reference Books:

1. Introduction to C by Reema Thareja, Publisher-Oxford
2. Programming with ANSI and Turbo C, by Ashok N Kamthane, Publisher – Pearson Education.
3. Let us C, by Yashwant Kanetkar, Publisher – BPB Publication