

Lab	Type	Practical															
I.	OVERVIEW OF C																
LAB-1	A A	1. Visit www.darshan.ac.in 2. Typing Club Practice.															
LAB-2	A A A	3. Introduction to GCC Compiler, Steps to Compile and Run C program in GCC. 4. Shortcuts of Editor. 5. Types of files.															
LAB-3	A A A A A B	6. WAP to print “Hello World” 7. WAP to print your address i) using single printf ii) using multiple printf 8. WAP to print addition of 2 numbers (without scanf) 9. WAP to calculate and print average of 2 numbers (without scanf) 10. WAP to print the following student details using \n and \t in printf: <table><tr><td>Name</td><td>Mark1</td><td>Mark2</td><td>Mark3</td><td>Total</td></tr><tr><td>Ravi</td><td>50</td><td>55</td><td>60</td><td>165</td></tr><tr><td>Sanjay</td><td>70</td><td>80</td><td>90</td><td>240</td></tr></table> 11. Print the following pattern using \n and \t: ***** * * * * * * *****	Name	Mark1	Mark2	Mark3	Total	Ravi	50	55	60	165	Sanjay	70	80	90	240
Name	Mark1	Mark2	Mark3	Total													
Ravi	50	55	60	165													
Sanjay	70	80	90	240													
LAB-4	A A A A A B B B	12. WAP to print addition of 2 numbers (with scanf) 13. WAP to calculate and print average of 2 numbers (with scanf) 14. WAP to calculate Area of Circle (hint: $area = \pi * r * r$) 15. WAP to calculate Area of Triangle (hint: $a = h * b * 0.5$) 16. WAP to calculate Simple Interest ($SI = P * R * N / 100$) 17. WAP to convert temperature from Fahrenheit to Celsius (Hint: $C = [(^{\circ}F - 32) \times 5] / 9$)) 18. WAP to find percentage of 5 subjects 19. WAP to enter distance into kilometer and convert it into meter, feet, inches, and centimeter															
II.	DECISION MAKING & LOOPING																
LAB-5	A A A	Using simple if 20. WAP to check whether the given number is positive or negative 21. WAP to check whether the given number is odd or even 22. WAP to find out largest number from given two numbers															

	<p>A 23. WAP to find out largest number from given three numbers using Logical Operator (&&)</p> <p>A 24. WAP to perform Addition, Subtraction, Multiplication and Division of 2 numbers as per user's choice</p> <p>B 25. WAP to enter basic salary of an employee and calculate Gross salary according to given conditions: Basic Salary >= 10000 : HRA = 20% of basic, DA = 80% of basic Basic Salary >= 20000 : HRA = 25% of basic, DA = 90% of basic Basic Salary >= 30000 : HRA = 30% of basic, DA = 95% of basic</p>
LAB-6	<p>Using if...else...</p> <p>A 26. WAP to check whether the given number is positive or negative</p> <p>A 27. WAP to check whether the given number is odd or even</p> <p>A 28. WAP to find out largest number from given two numbers</p> <p>Using nested if</p> <p>A 29. WAP to find out largest number from given three numbers without using Logical Operator (&&)</p> <p>B 30. WAP to enter basic salary of an employee and calculate Gross salary according to given conditions: Basic Salary >= 10000 : DA = 80% of basic salary, HRA = 20% of basic salary Basic Salary >= 20000 : DA = 90% of basic salary, HRA = 25% of basic salary Basic Salary >= 30000 : DA = 95% of basic salary, HRA = 30% of basic salary</p>
LAB-7	<p>Using Ladder if...else</p> <p>A 31. WAP to check whether the given year is leap year or not. [If a year can be divisible by 4 but not divisible by 100 then it is leap year but if it is divisible by 400 then it is leap year]</p> <p>A 32. WAP to check whether the entered character is capital, small letter, digit or any special character.</p> <p>B 33. WAP to read marks of five subjects. Calculate percentage and print class accordingly. <i>Fail</i> below 35, <i>Pass Class</i> between 35 to 45, <i>Second Class</i> between 45 to 60, <i>First Class</i> between 60 to 70, <i>Distinction</i> if more than 70</p> <p>Using Conditional operator (expr1?expr2:expr3)</p> <p>A 34. WAP to find out largest number from given 2 numbers</p> <p>B 35. WAP to find out largest number from given 3 numbers</p>
LAB-8	<p>Using Switch statement</p> <p>A 36. WAP to print day name based on day number</p> <p>A 37. WAP to print number of days in the given month</p> <p>A 38. WAP to input two numbers and arithmetic operators (+, -, *, /) from user. Perform operation on entered numbers according to operator using switch case.</p> <p>B 39. Create a menu driven program with options of positive, negative, zero to find whether the entered number is positive, negative or zero. When the option is entered by the user it should be executed. If user enters wrong option give an appropriate message.</p>

LAB-9	<p>A Discuss while loop</p> <p>A 40. WAP to print 1 to 10</p> <p>A 41. WAP to print 1 to n</p> <p>A 42. WAP to print odd numbers between 1 to n</p> <p>A 43. WAP to print even numbers between 1 to n and its sum</p> <p>B 44. WAP to print numbers between two given numbers which is divisible by 2 but not divisible by 3</p>
LAB-10	<p>A Discuss while or for loop</p> <p>A 45. WAP to print sum of 1 to n numbers</p> <p>A 46. WAP to calculate x^y without using power function</p> <p>A 47. WAP to print digits of the given number</p> <p>A 48. WAP to print sum of digits of given number</p> <p>B 49. WAP to find whether the given number is perfect or not</p> <p>B 50. WAP to find Armstrong of the given number</p> <p>B 51. WAP to check whether the given number is palindrome or not</p>
LAB-11	<p>A Discuss for loop</p> <p>A 52. WAP to find factors of the given number</p> <p>A 53. WAP to find factorial of the given number</p> <p>A 54. WAP to print given number in reverse order</p> <p>A 55. WAP to find whether the given number is prime or not</p> <p>A 56. WAP to print sum of series $1 + 4 + 9 + 16 + 25 + 36 + \dots n$</p> <p>B 57. WAP to print sum of series $1 - 2 + 3 - 4 + 5 - 6 + 7 \dots n$</p> <p>B 58. WAP to print sum of series $1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \dots + \frac{1}{n}$</p>
LAB-12	<p>A Discuss nested for loop</p> <p>A 59. WAP to find out prime numbers between given two numbers</p> <p>A 60. WAP to print Multiplication Table up to n</p> <pre> 1 2 3 4 5 6 7 . 2 4 6 8 10 12 14 . 3 6 9 12 15 18 21 . 4 8 12 16 20 24 28 . 5 10 15 20 25 30 35 </pre> <p>B 61. WAP to find the sum of $1 + (1+2) + (1+2+3) + (1+2+3+4) + \dots + (1+2+3+4+\dots+n)$</p>



LAB-13	A	62. WAP to display following patterns
	B	<pre> * 1 1 1 * * * * * 1 2 3 4 5 * * * 1 2 2 3 0 1 * * * * 1 2 3 4 * * * * * 1 2 3 4 5 6 1 0 1 * * * 1 2 3 * * * * * * * 1 2 3 4 7 8 9 10 0 1 0 1 * * 1 2 * * * * * * * * * 1 2 3 4 5 * * * * * * 1 * 1 * * * * * * * 2 2 * * * * * 3 3 3 * * * * * * 4 4 4 4 * * * * * * * 5 5 5 5 5 * * * * *</pre>
14	A	63. WAP to display following patterns
		<pre> * * * * * * A A A A A A B C D E 5 5 5 5 5 B. 1 * * * * * B B B B A B C D 4 4 4 4 A B * * * C C C A B C 3 3 3 2 3 4 * D D A B 2 2 C D E F E A 1</pre>
III.	POINTER, ARRAYS & STRINGS	
LAB-15		Discuss an Array
	A	64. WAP to print 10 numbers using array.
	A	65. WAP to count number of even or odd number from an array of n numbers
	A	66. WAP to read n numbers in an array and print them in reverse order
	A	67. WAP to find Max, Min, Sum of given numbers from an array
	B	68. WAP to sort elements of an array in an ascending order
	B	69. WAP to calculate average and total of 5 students for 3 subjects
	B	70. WAP to read five persons height and weight and count the number of person having height greater than 170 and weight less than 50
LAB-16	A	71. WAP to read values in two-dimensional array and print them in matrix form
	A	72. WAP to perform Addition of two matrices
	A	73. WAP to perform Multiplication of two matrices
	B	74. WAP to perform Transpose of a matrix
LAB-17		Discuss Strings
	A	75. WAP to use all string handling functions (strlen, strcmp, strcpy, strcat, strrev, strlwr,strupr)
	A	76. WAP to find a character from given string

	A A B B	77. WAP to replace a character in given string 78. WAP to delete a character in given string 79. WAP to reverse a string 80. WAP to convert string to upper case
LAB-18	A A A A B B	Discuss Pointers 81. WAP to print value and address of a variable 82. WAP to calculate sum of two numbers using pointer 83. WAP to swap value of two numbers using pointer 84. WAP to calculate sum of elements of an array using pointer 85. WAP to swap value of two variables 86. WAP to print the address of character and the character of string using pointer
IV.	FUNCTIONS	
LAB-19	A A A A A B B B B	Discuss Function 87. WAP to print addition of two numbers using a function 88. WAP to count simple interest using function 89. WAP that defines a function to add first n numbers 90. WAP to find maximum number from given two numbers using function 91. WAP to take a global variable 'count' and increment its value using function 92. WAP to take a static variable 'count' and increment its value using function 93. WAP to print given number in reverse order using function 94. WAP that defines a function which returns 1 if the number is prime otherwise return 0 95. WAP to find factorial using Recursion
V.	STRUCTURE & UNIONS	
LAB-20	A A A B B	Discuss Structure 96. WAP to create structure of student with rollno, name and division. Read data and print the details for 1 student 97. WAP to create structure of book with book title, author name, publication, and price. Read data of 3 books and display them 98. Define a structure Person that would contain person name, date of joining, and salary using this structure to read this information of 5 people and print the same on screen 99. Define a structure student_record to contain rollno, name, branch, and total marks obtained. WAP to read data for 5 students in a class and print them 100. WAP to create structure of employee with empno, name, department, designation and enter basic salary of an employee and calculate Gross salary according to given conditions. Read data of n books and display them Basic Salary >= 10000 : HRA = 20% of basic, DA = 80% of basic Basic Salary >= 20000 : HRA = 25% of basic, DA = 90% of basic Basic Salary >= 30000 : HRA = 30% of basic, DA = 95% of basic