C Lab – List of Practicals

1. Write a program to print “Hello User” message in the output screen

2. Write a program to print your name on the screen, as soon as a key is pressed name should disappear from the screen, again on pressing any key, surname gets printed.

3. Write a program to demonstrate the use of Escape sequences (\n,\t,\b,\r).

4. Write a program to print your name at the centre of the screen

5. Write a program to accept an integer number from the user and print it on the screen.

6. Write a program to accept character value from the user and print the character as well and its ASCII value.

7. Write a program to accept float value from the user and print it up to two decimal places.

8. Write a program to calculate average of three numbers. Numbers are taken from keyboard.

9. Write a program to accept an integer number, character and float value from the user using single scanf and print it.

10. Write a program to accept an integer number, character and float value from the user using multiple scanf and print it.

11. Write a program to accept two integer number from the user and print it sum.

12. Write a program to accept two integer number and perform all the basic arithmetic operations: Addition, Subtraction, Division, and Multiplication

13. Write a program to accept principle, rate and interest from the use and calculate simple interest.

14. Write a C program to accept principle (amount), time and rate (P, T, R) from the user and find Compound Interest and print it.

15. Write a program to accept radius from the user and calculate volume of a sphere.

$$V = (4/3) * 3.14 * r*r*r$$

16. Write a program to swap two integer number with and without using third variable

17. Write a program to display last digit of a number. Number is entered through keyboard.

18. Write a program to calculate sum of the digits of three digit number.

19. Write a program to print profit and profit percentage. Selling price and cost price is given by user.

20. Write a C program to convert temperature from Celsius to Fahrenheit using appropriate operators and formula.

$F = (C * 9/5) + 32$

21. Write a program to calculate and print the area of the following shapes. Also take appropriate input from from the user.

Rectangle (length * width)

Triangle (1/2 * base * height)

Circle (pi * radius * radius)

22. Write a program to understand the use of relational operators.

23. Write a program to print the size of various data types.

24. Write a program to accept marks of five subjects(Physics, Chemistry, Maths, Hindi, English) from the user and print and calculate the total sum and percentage.

25. Write a program to accept number of days from the user and convert it into number of months and days.

26. A computer manufacturing company has the following monthly compensation policy to their salesperson:

Minimum base salary: 1500/-

Bonus for every computer sold: 200/-

Commission on the total monthly sales: 2%

Now accept the Number of items sold and price of the item from the user and calculate the gross salary of the salesperson.

27. Write a program to accept a number from the user and check whether the given number is an even number or odd number (Use Ternary Operator)

28. Write a program to accept a number from the user and print its absolute value. (Use Ternary Operator)

29. Write a program to accept any two numbers from the user and if the first number is greater than second then print the sum of these two numbers, otherwise print their difference. (Use Ternary Operator)

30. Write a program to demonstrate the use of storage classes.

31. Write a program to print the largest among two given user number.

Write a C program to accept two integers and check whether they are equal or not.

Write a C program to determine eligibility for admission to a professional course based on the following criteria:

Eligibility Criteria : Marks in Maths >=65 and Marks in Phy >=55 and Marks in Chem>=50 and Total in all three subject >=190 or Total in Maths and Physics >=140

32. Write a number to accept a number from the user and check whether the given number is an even number or odd number.

33. Write a program to print the largest number among three given user numbers.

34. Write a program to print a message if negative number is entered by the user.

35. Write a program to accept a character from the user and print whether the given character is an upper case character or lower case character.

36. Write a program to read temperature in centigrade and display a suitable message according to the temperature state below:

Temp < 0 then Freezing weather

Temp 0-10 then Very Cold weather

Temp 10-20 then Cold weather

Temp 20-30 then Normal in Temp

Temp 30-40 then Its Hot

Temp >=40 then Its Very Hot

37. Write a program to accept a character from the user and print whether the given character is an upper case character, lower case character, digit or any other special case character.

38. Write a C program to check whether a number is divisible by 5 and 11 or not using if else.

39. Write a C program to check whether a triangle is valid or not if angles are given using if else.

41. Write a program in C which is a Menu-Driven Program to perform a simple calculation.

42. Write a program check whether a given year is a leap year or non leap year.

Leap Year: 2000,2400,2012,2016,2024

Not Leap Year

: 1800,1900,2100,2200,1999,2023

43. Write a C program to enter month number between

(1-12) and print number of days in month.

44.Write a C program to input sides of a triangle and check whether a triangle is equilateral, scalene or isosceles triangle.

45. Write a program to calculate gross salary of an employee based on below criteria:

- For a basic salary less than or equal to 10,000, HRA is 20%, and DA is 80% of the basic salary.
- For a basic salary of up to 20,000, HRA is 25%, and DA is 90% of the basic salary.
- For a basic salary of more than 20,000, HRA is 30%, and DA is 95% of the basic salary

Accept the basic salary from the user, calculate and print the gross salary.

46. Write a C program to input electricity unit charge and calculate the total electricity bill according to the given condition:

For first 50 units Rs. 0.50/unit

For next 100 units Rs. 0.75/unit

For next 100 units Rs. 1.20/unit

For unit above 250 Rs. 1.50/unit

An additional surcharge of 20% is added to the bill.

47. Write a program to enter five subjects of a marks and calculate the grade of the students based on percentage using below criteria:

If percentage >=90 then grade is A

If percentage >=80 then grade is B

If percentage >=70 then grade is C

If percentage >=60 then grade is D

If percentage >=40 then grade is E

Else print Fail

48. Write a currency program, that tells you how many number of 100, 50, 20, 10, 5, 2 and 1 Rs notes will be needed for a given amount of money. For example if the total amount is Rs 545 then five 100

Rs notes, two 20 Rs note and one 5 Rs note will be needed.

49. Write a C program to print all natural numbers from 1 to n. – using while loop

50. Write a C program to print all natural numbers in reverse (from n to 1). – using while loop

51. Write a C program to print all alphabets from a to z. – using while loop

52. Write a C program to print all even numbers between 1 to 100. – using while loop

53. Write a C program to print all odd number between 1 to 100.

54. Write a C program to find sum of all natural numbers between 1 to n.

55. Write a C program to find sum of all even numbers between 1 to n.

56. Write a C program to find sum of all odd numbers between 1 to n.

57. Write a C program to print multiplication table of any number.

58. Write a C program to count number of digits in a number.

59. Write a C program to find first and last digit of a number.

60. Write a C program to find sum of first and last digit of a number.

61. Write a C program to swap first and last digits of a number.

62. Write a C program to calculate sum of digits of a number.

63. Write a C program to calculate product of digits of a number.

64. Write a program to find out the LCM and HCF of the two given user numbers.

65. Write a C program to enter a number and print its reverse.

66. Write a C program to check whether a number is palindrome or not.

67. Write a C program to find power of a number using for loop.

68. Write a C program to find all factors of a number.

69. Write a C program to calculate factorial of a number.

70. Write a C program to check whether a number is Prime number or not.

71. Write a C program to print all Prime numbers between 1 to n.

72. Write a C program to find sum of all prime numbers between 1 to n.

73. Write a C program to check whether a number is Armstrong number or not.

74. Write a C program to print all Armstrong numbers between 1 to n.

75. Write a C program to check whether a number is Perfect number or not.

76. Write a C program to print all Perfect numbers between 1 to n.

77. Write a C program to check whether a number is Strong number or not.

78. Write a C program to print Fibonacci series up to n terms.

79.Write a program to print various star and number patterns.

80. Write a program to add two numbers using a UDF called add.

81. Write a program to calculate factorial of a user given number using a UDF called factorial

82. Write a program to find out whether the user given number is a prime number or not number using a UDF called prime

83. Write a recursive function to calculate factorial of a user given number.

84. Write a program to calculate the sum of first N natural numbers using recursion

85. Write a program to find the Fibonacci Number using Recursion

86. Write a program to calculate power of a number using Recursion

87. Write a program to find smallest and largest number in a array.

88. Write a program to find an element from the array elements.

89. Write a program to find the total sum and average of all the array elements.

90. Write a program to sort the array elements in ascending and descending order

91. Write a program to find the sum of even and odd numbers in an array elements.

92. Write a program to convert decimal number to binary number.