

PROBLEM LIST:

basic programming exercises:

1. Write a C program to perform input/output of all basic data types.
2. Write a C program to enter two numbers and find their sum.
3. Write a C program to enter two numbers and perform all arithmetic operations.
4. Write a C program to enter length and breadth of a rectangle and find its perimeter.
5. Write a C program to enter length and breadth of a rectangle and find its area.
6. Write a C program to enter radius of a circle and find its diameter, circumference and area.
7. Write a C program to enter length in centimeter and convert it into meter and kilometer.
8. Write a C program to enter temperature in Celsius and convert it into Fahrenheit.
9. Write a C program to enter temperature in Fahrenheit and convert to Celsius
10. Write a C program to convert days into years, weeks and days.
11. Write a C program to find power of any number x^y .
12. Write a C program to enter any number and calculate its square root.
13. Write a C program to enter two angles of a triangle and find the third angle.
14. Write a C program to enter base and height of a triangle and find its area.
15. Write a C program to calculate area of an equilateral triangle.
16. Write a C program to enter marks of five subjects and calculate total, average and percentage.
17. Write a C program to enter P, T, R and calculate Simple Interest.
18. Write a C program to enter P, T, R and calculate Compound Interest.

IF-ELSE PROBLEM:

19. Write a C program to find maximum between two numbers.
20. Write a C program to find maximum between three numbers.
21. Write a C program to check whether a number is negative, positive or zero.
22. Write a C program to check whether a number is divisible by 5 and 11 or not.
23. Write a C program to check whether a number is even or odd.

24. Write a C program to check whether a year is leap year or not.
25. Write a C program to check whether a character is alphabet or not.
26. Write a C program to input any alphabet and check whether it is vowel or consonant.
27. Write a C program to input any character and check whether it is alphabet, digit or special character.
28. Write a C program to check whether a character is uppercase or lowercase alphabet.
29. Write a C program to input week number and print week day.
30. Write a C program to input month number and print number of days in that month.
31. Write a C program to count total number of notes in given amount.
32. Write a C program to input angles of a triangle and check whether triangle is valid or not.
33. Write a C program to input all sides of a triangle and check whether triangle is valid or not.
34. Write a C program to check whether the triangle is equilateral, isosceles or scalene triangle.
35. Write a C program to find all roots of a quadratic equation.
36. Write a C program to calculate profit or loss.
37. Write a C program to input marks of five subjects Physics, Chemistry, Biology, Mathematics and Computer. Calculate percentage and grade according to following:

| | | | | | |
|----------------------------|----|-----|---|-------|---|
| Percentage | >= | 90% | : | Grade | A |
| Percentage | >= | 80% | : | Grade | B |
| Percentage | >= | 70% | : | Grade | C |
| Percentage | >= | 60% | : | Grade | D |
| Percentage | >= | 40% | : | Grade | E |
| Percentage < 40% : Grade F | | | | | |
38. Write a C program to input basic salary of an employee and calculate its Gross salary according to the following:

| | | | | | | | | | |
|--|----|-------|---|-----|---|------|----|---|-----|
| Basic Salary | <= | 10000 | : | HRA | = | 20%, | DA | = | 80% |
| Basic Salary | <= | 20000 | : | HRA | = | 25%, | DA | = | 90% |
| Basic Salary > 20000 : HRA = 30%, DA = 95% | | | | | | | | | |
39. Write a C program to input electricity unit charges and calculate 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

FOR LOOP PROBLEM:

40. Write a C program to print all natural numbers from 1 to n. - using while loop
41. Write a C program to print all natural numbers in reverse (from n to 1). - using while loop
42. Write a C program to print all alphabets from a to z. - using while loop
43. Write a C program to print all even numbers between 1 to 100. - using while loop
44. Write a C program to print all odd number between 1 to 100.
45. Write a C program to find sum of all natural numbers between 1 to n.
46. Write a C program to find sum of all even numbers between 1 to n.
47. Write a C program to find sum of all odd numbers between 1 to n.
48. Write a C program to print multiplication table of any number.
49. Write a C program to count number of digits in a number.
50. Write a C program to find first and last digit of a number.
51. Write a C program to find sum of first and last digit of a number.
52. Write a C program to swap first and last digits of a number.
53. Write a C program to calculate sum of digits of a number.
54. Write a C program to calculate product of digits of a number.
55. Write a C program to enter a number and print its reverse.
56. Write a C program to check whether a number is palindrome or not.
57. Write a C program to find frequency of each digit in a given integer.
58. Write a C program to enter a number and print it in words.
59. Write a C program to print all ASCII character with their values.
60. Write a C program to find power of a number using for loop.
61. Write a C program to find all factors of a number.
62. Write a C program to calculate factorial of a number.
63. Write a C program to find HCF (GCD) of two numbers.
64. Write a C program to find LCM of two numbers.
65. Write a C program to check whether a number is Prime number or not.
66. Write a C program to print all Prime numbers between 1 to n.
67. Write a C program to find sum of all prime numbers between 1 to n.
68. Write a C program to find all prime factors of a number.
69. Write a C program to check whether a number is Armstrong number or not.
70. Write a C program to print all Armstrong numbers between 1 to n.
71. Write a C program to check whether a number is Perfect number or not.
72. Write a C program to print all Perfect numbers between 1 to n.
73. Write a C program to check whether a number is Strong number or not.

74. Write a C program to print all Strong numbers between 1 to n.
75. Write a C program to print Fibonacci series up to n terms.