Coding Fundamentals - List of 75 Programs

1. Write a program to print all the numbers from 1 to 10 using all the three loops.
2. Write a program to print all two digit numbers.
3. Write a program to print all the numbers from -50 to -10.
4. Write a program to print all the numbers from 1 to 99 in step of 2.
5. Write a program to print all three digit odd numbers. (2 ways)
6. Write a program to print multiples of 5 from 10 to 60.
7. Write a program to print all the numbers from 10 to 1 using all the three loops.
8. Write a program to print all 4 digit numbers in descending order.
9. Write a program to print all numbers from -100 to -200.
10. Write a program to print all numbers from 99 to 33 in step of 11.
11. Write a program to print all one digit numbers in descending order.
12. Write a program to print all number, its square and its cube for 1 to 10. Print in table format.

Num	square	cube
****	******	****
1	1	1
2	4	8

13. Write a program to print all numbers from x to y assuming x is less than y.
14. Write a program to print all numbers from x to y assuming x is more than y.
15. Write a program to print all number from x to y in step of z assuming x is less than y and z is positive.
16. Write a program to calculate and print sum of all numbers from 1 to 5.
17. Write a program to calculate and print sum of squares of all numbers from 1 to 5.
18. Write a program to calculate and print sum of all 2 digit odd numbers.
19. Write a program to calculate and print sum of all even numbers up to n.
20. Write a program to calculate and print sum of all the multiples of 10 from 100 to 200.
21. Write a program to calculate and print sum of all the numbers from x to y assuming y is more than x.
22. Write a program to calculate and print sum of reciprocals of all numbers from 1 to 5.
23. Write a program to calculate and print the product of all numbers from 1 to 5.
24. Write a program to calculate and print product all one digit odd numbers.

25. Write a program to calculate and print product of all numbers from x to y in step of z assuming x is less than y.
26. Accept changed owed from user and use minimum amount of coins to repay. Use 10rs, 5rs, 2rs, 1rs, 50 paisa (half a rupee) coins.
27. Write a program to calculate and print factorial of 5 i.e. 5*4*3*2*1.
28. Write a program to calculate and print factorial of x.
29. Write a program to print first 10 Fibonacci numbers.
30. Write a program to print all numbers between 1 and 100 which are divisible by 3.
31. Write a program to print all numbers between 1 and 100 which are divisible by 3 and 5.
32. Write a program to print all numbers between 1 and 100 which are divisible by 3 or 5.
33. Write a program to input a number than calculate and print number of digits in it.
34. Write a program to input a number than calculate and print sum of all its digits.
35. Write a program to input a number than calculate and print product of all its digits.
36. Write a program to input a number and then print reverse of it.
37. Write a program to input a number and check if even or odd and display an appropriate message.
38. Write a program to input a number and check if divisible by 3 and 5.
39. Write a program to input a number and check if divisible by 3 or 5.
40. Write a program to input a character and print ASCII of it.
41. Write a program to input an ASCII and to print corresponding character for it.
42. Write a program to print all alphabets from A to Z.
43. Write a program to sum up the following series:
    a. $1 + 3 + 5 + 7 + 9...31$
    b. $1^2 + 2^2 + 3^2 + 4^2 + 5^2 +...+ 10^2$
    c. $1/1 + 1/2 + 1/3 + 1/4...1/10$
    d. $1^1 + 2^2 + 3^3 + 4^4 + 5^5$
    e. $1/1 + 1/5 + 1/7 + 1/9 + 1/11...1/21$
    f. $1*3 + 3*5 + 5*7 + 7*9 + 9*11 + 11*13 + 13*15$
    g. $1! + 2! + 3! + 4! + 5! + 6! + 7!$
    h. $1^2 + 2^2 + 3^2 + 4^2 + 5^2 +...+ X^2$
    i. $2/3 + 5/6 + 8/9 + ...98/99$
    j. $-1+2-3+4-5+6-7+8-9+10-11$
    k. $1/10 + 2/20 + 3/30 + 4/40 + 5/50...10/100$

l.   1 + 3 + 5 + to 20 terms

m. 5 + 55 + 555 + 5555 to 7 terms

n. -1-2-3-4-5 to 20 terms

o. 1.1 + 3.3 + 4.4 + 5.5 + 6.6 + 7.7 + 8.8 + 9.9

43.   Write a program to input name and income of the person and then to print name, income and tax with suitable heading. Tax calculation is as follows.

Income	Tax
0-50000	0
50000-60000	10%
60000-150000	20%
over 150000	30%

44.   Write a program to input salesman name and sales and then to print name and total earnings with suitable heading.

Commission calculation is as follows.

Sales	Commission
0-5000	5%
5000-10000	7.5%
10000-15000	9.5%
over15000	11.5%

Additional 10% bonus on sales over 10000.

Total earnings = commission + bonus. Round total earnings to nearest rupee.

45.   Write a program to enter roll number, name and marks of student.
A student passes if marks are >=50. Print roll no, name and message "PASS" or "FAIL".
There are 5 students.

46.   Write a program to enter the value in centimeters (cm's). And print it as m meters and c centimeters along with cm's.

47.   Write a program to input seconds (sec) and then to print it is as h hours m minutes and s seconds.

48.   Write a program to enter three numbers and to print larger number out of if with suitable message.

49.   Write a program to input single character from keyboard and then to check whether it is vowel or consonant and to print message accordingly. (using if and switch both).

50.   Write a program to input name of the person and then to check whether it starts with "P" or not and to print message accordingly.

51. Write a program to input name of the person and then to check whether it contains "P" or not and to print message accordingly.
52. Write a program to input name of the person and then to calculates and print number of P's in it.
53. Write a program to input name of the person and to print reverse of it.
54. Write a program to input name of the person and to check whether it is palindrome word or not.
55. Write a program to input two number a & b and then to display menu containing options 1. add, 2. multiply 3. subtract ;4. divide, if user selects 1 then print value of a+b, if user selects 2 then print value of a*b, if user selects 3 then print value of a-b, if user selects 4 then print value of a/b.
56. Write a program to input name and marks of 10 students and then to print name and marks of student securing highest marks.
57. Write a program to input 2 numbers and to print GCD and LCM for it.
58. Write a program to input a number and then to check whether it is prime number of not and to print message accordingly.
59. Write a program to print all the prime numbers from 1 to 100.
60. Write a program to print all the prime numbers less then 2000 using while.
61. Write a program to print first 100 prime numbers.
62. Write a program to input 4 numbers and then to sort them in ascending order and then to print sorted numbers.
63. Write a program to input 4 numbers and then to sort them in ascending order and then to print
    1. numbers in original order
    2. numbers in ascending order
    3. numbers in descending order
    4. number in reverse order of it entry.
    With suitable heading.
64. Write a program to input roll number and marks of students and then to sort them in ascending order of their marks and to print sorted list containing roll number and marks in ascending order of marks with suitable heading.
65. Write a program to input 10 values of x and then to print median for it.
66. Write a program to input 15 values of x and then to print median for it.

67. Write a program to input 10 values of x and then to calculate and print mean of it.

68. Write a program to input machine cost, salvage and life of assets in number of years and then to calculate and display year, depreciation and depreciated value for different years using straight line method.

69. Write a program to input machine cost, salvage and depreciation percentage and then to calculate and display year, depreciation and depreciated value for different years using written down value method.

70. Write a program to input principle amount, rate of interest, number of years. And then to calculate and print accumulated interest and future value after number of years using iteration method.

71. Write a program to principle amount, rate of interest, number of years. And then to calculate and print year, accumulated interest and future value after each year.

72. Write a program to input future amount , rate of interest, number of years and then to calculate and print present value.

73. Write a program to input two dates and to calculate and print number of days between two dates.

74. Write a program to input values of n and r (ie. n things taken r at a time) and then to calculate and print permutation and combination values for it using user define function for factorial.

75. Write a program to input 20 values and then to count and print number of odd, even, negative number, positive numbers and zeros in it.