

C PROGRAMMING LANGUAGE
QUESTIONS For class XII

Set - A

1. Write a program to calculate the area of a circle where radius of circle is input and define ' π ' as constant.
2. Write a program that reads two variables x and y, and prints the bigger of the two. It gives an appropriate message in case the variables are equal.
3. Write a program that gives the largest among given three numbers x, y and z.
4. Write a program that accepts a single character & gives output as:
[Use if-else or switch-case]

If char=r or R ----- > Red
If char=w or W ----- > White
If char=b or B ----- > Blue
Other ----- > Error

5. Write a program whose input is a month entered as a number from 1 to 12 and whose output is the number of days in that month as [Use if-else or switch-case.]

<u>Month Input</u>	<u>Output</u>
1,3,5,7,8,10,12 -----	> The month has 31 days.
2 -----	> The month has 28 days or 29 days in leap year.
4,6,9,11 -----	> The month has 30 days.
Other -----	> The month is not contained in our calendar.

6. Write a program that accepts two integer and an operator (+, -, *, / or %). And the program should calculate the value as directed by the operator and display the result. [Use Switch-Case]
7. Write a program that prints a table of powers. The first few lines of the printed table look like this:

*** TABLE OF POWERS ***				
Integer	Square	Cube	4 th power	5 th power
1	1	1	1	1
2	4	8	16	32
3	9	27	81	243

8. Write a program that accepts the percentage obtained by a student and declare the division as:
If per \geq 75 ----- > Distinction
If per \geq 60 & $<$ 75 ----- > First Division
If per \geq 45 & $<$ 60 ----- > Second Division
If per \geq 32 & $<$ 45 ----- > Third Division
Other ----- > Failed
9. Write a program to calculate the area of N number of circles where radius of circle is input and define ' π ' as constant.
10. Write a program to sum all numbers from 1 to 100 and prints the result [the 100th triangular Number].

11. Write a program to print the square of first n natural number.
12. Write a program to generate the multiplication table of a number entered through a keyboard.
13. Write a program to print multiplication table of first 10 numbers.
14. Write a program to find the sum from lower to higher number. Lower and higher numbers are entered from keyboard.
15. Write a program to reverse any given integer number and also find their sum. [Example: If input = 249, then output must be 942 and 15]
16. Write a program that reads a list of 10 integer values and prints the total of all non-negative numbers in the list.
17. Write a program from printing the sum of squares of numbers upto a given number input. If n is the number, find $s = 1^2 + 2^2 + 3^2 + \dots + n^2$.
18. Write a program to compute the sum of squares of n numbers i.e.,

$$\text{sum} = \sum_{i=1}^n (a_i)^2$$

[e.g. $\text{sum} = 1^2 + 7^2 + 5^2 + 4^2$]

19. Write a program to compute factorial for a given number N, where N is a non-negative integer. [$N! = 1 * 2 * 3 * 4 \dots (N-1) * N$]
20. Write a program to find either a number entered is prime or not.
21. Write a program which reads N numbers and picks the largest of them.
22. Write a program for determining the smallest and highest number out of three given non- negative numbers A, B and C.
23. Write a program, which calculates and prints the sums of even and odd integers of the first n natural numbers.
24. Write a C++ program to print sum of negative numbers, sum of positive numbers and sum of positive odd number from a list of numbers entered by the user. The list terminates when the number entered is zero.
25. Write a program that reads and adds a list of real numbers and then prints their average. A zero entry from the keyboard marks the last entry of the list.
26. Write a program that reads the units of consumption of electricity by a consumer during a month and prints the net payable charges. The charges of electricity upto 20 units are Rs. 80. If units greater than 20, each additional unit of electricity cost increases by Rs. 6.
27. Write a program that asks input for Basic salary of 10 persons. If each of them gets 15% House Rent Allowance, 10% Transportation Allowance and 5% Entertainment Allowance, Calculate the total salary of each person. Print the number of person getting salary greater than 4000.
28. Write a program that generates the Fibonacci series as given below.
1, 1, 2, 3, 5, 8, 13, 21, N terms
29. Write a program that reads three sides of a triangle and determines whether a triangle can be formed using the given data.
30. Write a program that accepts a temperature in Fahrenheit and prints the equivalent temperature in Celsius. [Celsius = $5 * (\text{Fahr} - 32) / 9$]