C Programming Practice Questions

1. Write a C program to print your name, date of birth, and mobile number.

Expected Output:

Name : Alexandra Abramov
DOB : July 14, 1975
Mobile : 99-9999999999

2. Write a C program to print the following characters in reverse.
Test Characters: 'X', 'M', 'L'
Expected Output:
The reverse of XML is LMX

3. Write a C program to compute the perimeter and area of a circle with a given radius.
Expected Output:
Perimeter of the Circle = 37.680000 inches
Area of the Circle = 113.040001 square inches

4. Write a C program to convert specified days into years, weeks and days.
Note: Ignore leap year.

Test Data :
Number of days : 1329
Expected Output :
Years: 3
Weeks: 33
Days: 3

5. Write a C program that accepts an employee's ID, total worked hours in a month and the amount he received per hour. Print the ID and salary (with two decimal places) of the employee for a particular month.
Test Data :
Input the Employees ID(Max. 10 chars): 0342
Input the working hrs: 8

Salary amount/hr: 15000
Expected Output:
Employees ID = 0342
Salary = U$ 120000.00

6. Write a C program to calculate the distance between two points.
Test Data :
Input x1: 25
Input y1: 15
Input x2: 35
Input y2: 10
Expected Output:
Distance between the said points: 11.1803

7. Write a C program that reads 5 numbers and sums all odd values between them.
Test Data :
Input the first number: 11
Input the second number: 17
Input the third number: 13
Input the fourth number: 12
Input the fifth number: 5
Expected Output:
Sum of all odd values: 46

8. Write a program that converts Centigrade to Fahrenheit.
Expected Output :
Input a temperature (in Centigrade): 45
113.000000 degrees Fahrenheit.

9. Write a C program that takes hours and minutes as input, and calculates the total number of minutes.
Expected Output :
Input hours: 5
Input minutes: 37
Total: 337 minutes.

10. Write a program in C that reads a forename, surname and year of birth and displays the names and the year one after another sequentially.
Expected Output :
Input your firstname: Tom
Input your lastname: Davis
Input your year of birth: 1982
Tom Davis 1982

11. Write a C program to perform addition, subtraction, multiplication and division of two numbers.
Expected Output :
Input any two numbers separated by comma : 10,5
The sum of the given numbers : 15
The difference of the given numbers : 5
The product of the given numbers : 50
The quotient of the given numbers : 2.000000

12. Write a C program to check whether a given number is even or odd.
Test Data : 15
Expected Output :
15 is an odd integer

13. Write a C program to find whether a given year is a leap year or not.
Test Data : 2016
Expected Output :
2016 is a leap year.

14. Write a C program to read the age of a candidate and determine whether he is eligible to cast his/her own vote.
Test Data : 21
Expected Output :
Congratulation! You are eligible for casting your vote.

15. Write a C program to find the largest of three numbers.
Test Data : 12 25 52
Expected Output :
1st Number = 12, 2nd Number = 25, 3rd Number = 52

The 3rd Number is the greatest among three

16. 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 ---------- Input the marks obtained in Physics :65 Input the marks obtained in Chemistry :51 Input the marks obtained in Mathematics :72 Total marks of Maths, Physics and Chemistry : 188 Total marks of Maths and Physics : 137 The candidate is not eligible.
Expected Output :
The candidate is not eligible for admission.

17. Write a C program to read the roll no, name and marks of three subjects and calculate the total, percentage and division.
Test Data :
Input the Roll Number of the student :784
Input the Name of the Student :James
Input the marks of Physics, Chemistry and Computer Application : 70 80 90
Expected Output :
Roll No : 784
Name of Student : James
Marks in Physics : 70
Marks in Chemistry : 80
Marks in Computer Application : 90
Total Marks = 240
Percentage = 80.00
Division = First

18. Write a C 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

Test Data :
42
Expected Output :
Its very hot.

19. Write a C program that prompts the user to input a series of numbers until they input a duplicate number. Use a while loop to check for duplicates.

20. Write a C program that generates a random number between 1 and 20 and asks the user to guess it. Use a while loop to give the user multiple chances until they guess the correct number.

21. Write a C program that calculates and prints the sum of cubes of even numbers up to a specified limit (e.g., 20) using a while loop.

22. Write a C program that prompts the user to enter a positive integer. Use a while loop to print the multiplication table for that number up to 10.

23. Write a program in C to display the multiplier table vertically from 1 to n.
Test Data :
Input upto the table number starting from 1 : 8
Expected Output :
Multiplication table from 1 to 8
1x1 = 1, 2x1 = 2, 3x1 = 3, 4x1 = 4, 5x1 = 5, 6x1 = 6, 7x1 = 7, 8x1 = 8
...
1x10 = 10, 2x10 = 20, 3x10 = 30, 4x10 = 40, 5x10 = 50, 6x10 = 60, 7x10 = 70, 8x10 = 80

24. Write a C program to display the n terms of odd natural numbers and their sum.
Test Data
Input number of terms : 10
Expected Output :
The odd numbers are :1 3 5 7 9 11 13 15 17 19
The Sum of odd Natural Number upto 10 terms : 100

25. Write a program in C to display a pattern like a right angle triangle using an asterisk.
The pattern like :

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*
**
***
****
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26. Write a C program to display a pattern like a right angle triangle with a number.
The pattern like :

```
1
12
123
1234
```

27. Write a program in C to make such a pattern like a right angle triangle with the number increased by 1.
The pattern like :

```
 1
 2 3
 4 5 6
 7 8 9 10
```

28. Write a program in C to make a pyramid pattern with numbers increased by 1.

```
 1
 2 3
4 5 6
7 8 9 10
```

29. Write a C program to calculate the factorial of a given number.
Test Data :
Input the number : 5
Expected Output :

The Factorial of 5 is: 120

30. Write a program in C to display the n terms of a harmonic series and their sum.
1 + 1/2 + 1/3 + 1/4 + 1/5 ... 1/n terms
Test Data :
Input the number of terms : 5
Expected Output :
1/1 + 1/2 + 1/3 + 1/4 + 1/5 +
Sum of Series upto 5 terms : 2.283334