C Assignment

Sequential Program

1. WAP to accept length and breadth of a rectangle and radius of a circle. Calculate the area of rectangle and circle.
2. WAP to accept temperature into Celsius and convert it into Fahrenheit. C*9/5+32=F
3. WAP to accept distance between two cities in km and convert distance in meter, feet and inches. M=Km*1000, Feet=km*3280.8, inches= km*39370.0787
4. WAP to accept basic salary from the user and calculate the gross salary in which DA is 85% of basic salary and HRA is 30% of basic salary.

If statements

5. WAP to accept a number from user and check whether that num is even or odd.
6. WAP to accept three subjects marks. Find out the total and %age marks and mark the division according to the %age. If %age >=50 and %age <60 than II division, If %age >=60 and %age <75 than I division, If %age >=75 distinction.
7. WAP to accept sales amount from salesman and calculate the commission according to the following rules:

   If sales amount lies b/w 2500-10000 than commission is 10% of sales amount. If sales amount lies b/w 10000-25000 than commission is 20% of sales amount If sales amount >25000 than commission is 25% of sales amount.
8. WAP to accept total no of hours work by the worker. Calculate the wages according to the following wage rate.

Upto 8 hours	Rs. 50/-
Next 4 hours	Rs. 20/- per hour
Next 4 hours	Rs. 25/- per hour
Next 4 hours	Rs. 30/- per hour
Next 4 hours	Rs. 50/- per hour

9. WAP to accept a character from the user and check whether that character is a digit or alphabets or special character.
10. Write a program to find whether a given character is a Vowel or consonant. A character is taken as input. The character may be in Upper Case or in Lower Case
11. WAP to accept a number from user and check whether that number is +ve, -ve or zero.
12. WAP to accept basic salary from the user and calculate the gross salary. If basic salary is less than 1500 then HRA is 10% of basic salary and DA is 25% of Basic Salary. If basic salary >=1500 than HRA is equal to 500/- Rs. And DA is 50% of basic Salary.
13. WAP to accept a year from the user and check whether that year is a leap year or not.
14. WAP to accept 3 nos from the user and find out the largest number among them.
15. WAP to accept 3 nos from the user and find out the smallest number among them.
16. WAP to find whether a triangle can be formed or not. If not display "This Triangle is NOT possible." If the triangle can be formed then check whether the triangle formed is equilateral, isosceles, scalene or a right-angled triangle. (If it is a right-angled triangle then only print that it is a Right-angle triangle do not print it as scalene triangle).
17. WAP that a library charges a fine for every book returned late for

Ist 5 days	50 paisa/day
6-10 days	1 rupee /day
Above 10 days	Rs 5 /day

    If u return the book after 30 days your membership will be cancelled. WAP to accept the no. of days the member is late to return the books and display the fine or appropriate message.
18. If the 3 sides of a triangle are entered through the keyboard. WAP to check whether the triangle is valid or not. The triangle is valid if the sum of two sides is greater than the third side.

LOOPS

19. WAP to generate first 10 terms of natural nos.
20. WAP to generate n terms of Fibonacci series.
21. Write a Program to find the sum of all even numbers from 1 to N where the value of N is taken as input
22. WAP to calculate factorial of a number.
23. Write a C program to check whether a given number (N) is a perfect number or not?

    [Perfect Number - A perfect number is a positive integer number which is equals to the sum of its proper positive divisors. For example 6 is a perfect number because its proper divisors are 1, 2, 3 and it's sum is equals to 6.]
24. WAP to accept a number and calculate the sum of digits.
25. WAP to accept a number and calculate the total no of digits in the number.
26. WAP to accept a number and find out reverse of a number.
27. Write a C program to check whether the given number(N) can be expressed as Power of Two (2) or not. For example 8 can be expressed as 2^3.
28. Write a C program to find sum of following series where the value of N is taken as input 1+ 1/2 + 1/3 + 1/4 + 1/5 + .. 1/N
29. WAP to accept a number and check whether that number is prime or not
30. WAP to accept a number and check whether that number is Armstrong number or not.
31. Write a C program to print the following Pyramid pattern upto Nth row. Where N (number of rows to be printed) is taken as input.

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32. WAP to accept n numbers from the user and find out the second largest among them.
33. WAP to accept n numbers from the user and find out how many are +ve, -ve and zero.
34. WAP to accept n and r from user and find out n raise to the power r.
35. WAP to accept a character in lower case and convert it into upper case.
36. WAP to generate all combination of 1,2 and 3 using loops.
37. WAP to print days of a week corresponding to the nos 1 to 7 using switch case.
38. WAP to accept a number from the user and check whether that number is a palindrome or not.
39. WAP to accept a numbers from the user and print that number in numerals. For eg:- 927 nine two seven
40. WAP to generate following pattern

    1
    12
    123
    1234
41. WAP to accept choice if press 1 than add two nos, if press 2 than subtract two nos, if press 3 then divide two numbers, if press 4 then multiply two numbers, otherwise do nothing.

Arrays

42. WAP to accept an array and find out sum of all the elements of the array.
43. WAP to accept an array and find out largest element from them.
44. WAP to accept an array and print them in reverse order.
45. WAP to accept an array and count even and odd numbers.
46. WAP to accept an array and count +ve, -ve and zero elements.
47. WAP to accept an array and print only prime numbers only.
48. WAP to accept an array and sort that array.
49. WAP to accept two array and concatenate two array and store that in 3rd array.
50. WAP to accept two array and find out sum of two array.
51. WAP to accept an array and search an element from them.

52. WAP to accept 3*3 matrix and find out the diagonal elements from the matrix.
53. WAP to accept m*n matrix find out the sum of diagonal elements.
54. WAP to accept m*n matrix and find out sum of all the elements of the matrix.
55. WAP to accept m*n matrix and find out the transpose of the matrix.
56. WAP to accept m*n matrix and find out sum of each row and each column.
57. WAP to accept 2 m*n matrix and find out the addition of 2 matrix.
58. WAP to accept 2 m*n matrix and find out the multiplication of 2 matrix.

Strings

59. WAP to accept a string and find out the length of the string.
60. WAP to accept a string and copy the string to another string.
61. WAP to accept two strings and find out the concatenation of the string.
62. WAP to accept a string and find out the total no of vowels in the string.
63. WAP to accept a string and find out the total no of words in the string.
64. WAP to accept a string in upper case and covert it into lower case.

Functions

65. WAP to find out the factorial of a number using function.
66. WAP to swap two numbers using functions.
67. WAP to find out the area of rectangle using functions.