CSE-1113: Programming Fundamentals
Problem list for Practicing
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	Branching (14+4)
1	Write a C program to find the maximum between three numbers.
2	Write a C program to check whether a number is negative, positive, or zero.
3	Write a C program to check whether a number is divisible by 5 and 11 or not.
4	Write a C program to check whether a number is even or odd.
5	Write a C program to check whether a year is a leap year or not.
6	Write a C program to check whether a character is an alphabet or not.
7	Write a C program to input any alphabet and check whether it is vowel or consonant.
8	Write a C program to input any character and check whether it is alphabet, digit or special character.
9	Write a C program to check whether a character is uppercase or lowercase alphabet.
10	Write a C program to input the week number and print weekday.
11	Write a C program to count the total number of notes in a given amount.
12	Write a C program to input a triangle's angles and check whether the triangle is valid or not.
13	Write a C program to input marks of a subject and calculate grade according to the following: marks >= 90 : Grade A marks >= 80 : Grade B marks >= 70 : Grade C marks >= 60 : Grade D marks >= 40 : Grade E marks < 40 : Grade F
14	Write a C program to input marks in three subjects Physics, Mathematics, and Computer. Calculate the percentage and grade according to the 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
	Switch case
15	Write a C program to print day of week name using switch case.
16	Write a C program to create a Simple Calculator using switch case.
17	Write a C program to takes input character variable and print one of the following messages, (a) RED, if either r or R is assigned to the variable (b) GREEN, if either g or G is assigned to the variable (c) BLUE, if either b or B is assigned to the variable (d) BLACK, if variable is assigned any other character
18	Write a C program using switch-case statement to input marks of a subject and calculate grade according to the following: marks >= 90 : Grade A marks >= 80 : Grade B marks >= 70 : Grade C marks >= 60 : Grade D marks >= 40 : Grade E marks < 40 : Grade F
	LOOP (32)
1	Write a C program to print the first n natural numbers
2	Write a C program to print the first n odd/even natural numbers
3	Write a C program to print all even numbers between 1 to n.
4	Write a C program to print all odd numbers between 1 to n.
5	Write a C program to find the sum of all natural numbers between 1 to n.
6	Write a C program to find the sum of all even numbers between 1 to n.
7	Write a C program to find the sum of all odd numbers between 1 to n.
8	Write a C program to find the sum of every third integer (2 + 5 +8 + 11 + …) between 2 to n.
9	Write a C program to print all natural numbers in reverse (from n to 1).
10	Write a C program to find the product of all natural numbers between 1 to n.
11	Write a C program to calculate the average of a list of n numbers.

12	Write a C program to find the maximum from a list of n numbers.
13	Write a C program to count the odd and even numbers from a list of n numbers.
14	Write a C program to print a multiplication table of any number.
15	Write a C program to find the power of a number using a for loop.
16	Write a C program to calculate the factorial of a number.
17	Write a C program to find all factors of a number.
18	Write a C program to check whether a number is a Prime number or not.
19	Write a C program to print the Fibonacci series up to n terms.
20	Write a C program to check whether a number is an Armstrong number or not.
21	Write a C program to count the number of digits in a number.
22	Write a C program to calculate the sum of digits of a number.
23	Write a C program to enter a number and print the reverse of that number.
24	Write a C program to enter a number and print it in words.
25	Write a C program to check whether a number is palindrome or not.
26	Write a C program to find the HCF (GCD) of two numbers.
27	Write a C program to find the LCM of two numbers.
28	Write a C program to find one's complement of a binary number.
29	Write a C program to convert Decimal to Binary number system.
30	Write a C program to convert Decimal to Octal number system.
31	Write a C program to convert Hexadecimal to Decimal number system.
32	Write a C program to convert Octal to Hexadecimal number system.
	Nested Loop (4*)
1	Write a C program to print all Prime numbers between 1 to n.
2	Write a C program to print all Perfect numbers between 1 to n.
3	Star pattern programs – Write a C program to print the star patterns.
4	Write a C program to print Pascal triangle upto n rows.

	Array (10 + 4)
1	Write a C program to find the sum of all array elements.
2	Write a C program to find an array's maximum and minimum elements.
3	Write a C program to find the sum of all array elements except its index value /element.
4	Write a C program to copy all elements from an array to another array.
7	Write a C program to print all unique elements in the array.
8	Write a C program to put even and odd elements in two separate array.
9	Write a C program to search for an element in an array.
10	Write a C program to sort array elements in ascending or descending order.
	2D Array
11	Write a C program to perform Scalar matrix multiplication.
12	Write a C program to find the sum of a matrix's main/major diagonal elements.
13	Write a C program to find the sum of minor diagonal elements of a matrix.
14	Write a C program to find the transpose of a matrix.
	String (12)
1	Write a C program to find the length of a string.
2	Write a C program to copy one string to another string.
3	Write a C program to concatenate two strings.
4	Write a C program to compare two strings.
5	Write a C program to toggle case of each character of a string.
6	Write a C program to count total number of vowels and consonants in a string.
7	Write a C program to find first occurrence of a character in a given string.
8	Write a C program to find last occurrence of a character in a given string.
9	Write a C program to search all occurrences of a character in given string.
10	Write a C program to count occurrences of a character in given string.
11	Write a C program to find reverse of a string.

12	Write a C program to check whether a string is palindrome or not.
	Function (7)
1	Write a C program to find a cube of any number using a function.
2	Write a C program using functions to find the area of a circle where the radius is given.
3	Write a C program to find the minimum between two numbers using functions.
4	Write a C program using functions to check whether a number is even or odd.
5	Write a C program using functions to check whether a number is prime or not.
6	Write a C program using functions to find the factorial of an integer.
7	Write a C program to find all prime numbers between given intervals using functions.