	Initial and If Structure
01	Write a program that can calculate the sum and average of three numbers.
02	There is given the radius of a circle. Find the area, circumference of it. (*Use π as a symbolic constant*).
03	There is given the area and height of a triangle. Find out the base of triangle.
04	There are three values of three lines; Find out the area of it.
05	Write a program to compute the roots of a quadratic equation $ax^2 + bx + c = 0$ use following conditions. (i) There is only one root, if a =0 (x = -c/b). (ii) There are no real roots, if b^2-4ac is negative. Otherwise, there are no real roots.
06	Find out the maximum of two numbers using if structure.
07	Find out the maximum of three numbers using only if structure.
08	Write a program that convert temperature to from Fahrenheit to Celsius and vice versa.
09	Write a program that can say the Askey value of a key of keyboard.
10	Write a program that can say whether it is Character, digit or functional key.
11	Write a program that can test whether a number is Odd or Even.
12	Writ a program that can test whether it is divisible by 5 or not.
13	Write a program that can test a year whether it is leaper or not.
14	Write a program that can test a number whether it is negative or positive.
15	Write a program that can say the name of weekdays by receiving 1 to 7. Using (i) If-then-else statement and (ii) Switch Statement.
16	Write a program that can say the name of Month by receiving 1 to 12. Using (i) If-then-else statement and (ii) Switch Statement.
17	Write a program that can convert an upper case letter to lower case letter and vice versa.
18	Write a program that will obtain the length and width of a rectangle from the user and compute its area and perimeter.
19	Using the conditional operator find out the maximum of two numbers.
20	Using the conditional operator find out the maximum of three numbers.
19	Write a program that read the value of x and evaluate the following function using if statement and? Operator:

	$y = \begin{cases} 1 \text{ for } x > 0 \\ 0 \text{ for } x = 0 \\ 1 \text{ for } x < 0 \end{cases}$
20	
21	Do the above program using the function.
	Loop Structure
	Solve all the programs by using three loops and user defines function.
01	Print the series 1 2 3 4 5 . . . . . **N** Where **N** will be given through keyboard.
02	Print the series N, N-1, N-2, ….. 3, 2, 1 Where **N** will come through keyboard.
03	Print all odd numbers among **1** and **N** in ascending order.
04	Print all even numbers among **1** and **N** in descending order.
05	Write a C program to find the number of and sum of all integers greater than 50 and less than 300 that are divisible by 9.
06	Write a C program to find the number of and sum of all integers greater than 100 and less than 200 that are divisible by 7.
07	Find out the factorial of a number N. Where N will come from key board.
08	Find out the summation of the series $\sum_1^N x$ Where N will come from keyboard.
09	Print the following half pyramid. *1* *1 2* *1 2 3* *1 2 3 4* *1 2 3 4 5* …….. …….. *1 2 3 4 5 6 7....N* Where N will come from keyboard.
10	Test a number whether it is prime number or non prime number.
11	Write the Fibonacci series up to N Where N will be given through the key board
12	Print the following full pyramid. *1* *1 2* *1 2 3* *1 2 3 4*

	1 2 3 4 5 *……* *……* *1 2 3 4 5 6 7…… .N* Where N will come from keyboard.	
13	After receiving the value of N the output will be as follows.	
	1	*1 = 1*
	2	*1 + 2 = 3*
	3	*1 + 2 + 3 = 6*
	4	*1 + 2 + 3 + 4 = 10*
	.	
	.	
	.	
	N	*1 +2 +3 +4 +5+ ……+ N =* $\sum_1^N x$
14	After receiving the value of N the output will be as follows.	
	Value of N	*Corresponding output*
	1	*1 = 1*
	2	*1 * 2 = 2*
	3	*1 * 2 * 3 = 6*
	4	*1 * 2 * 3 * 4 = 24*
	.	
	.	
	.	
	N	*1 *2 *3 *4 *5* ……* N =* $\sum_1^N x$
15	Find out the value of sinx, cosx, tanx, cots, secx, cosecx Where the value of x is in radian but you have to take the degree value from key board.	
16	Calculate the value of the series of e^x, e^{-x}, $\log(1+x)$, $\log(1-x)$,	
17	Find the all the prime numbers in number **N** Where **N** will be given through key board.	
18	*Value of N*	*Corresponding output*
	20	*1 2 3 5 7 11 13 17*
	50	*1 2 3 5 7 11 13 17 23 29 31 37 41 43 47*
	.	
	N	*1 2 3 5 7 11 13 17 23 29 31 37 41 43 47 …… N*
19		
20	Write a program that can reverse an integer number.	
	Value of N	*Output*

	23	*32*
	123	*321*
	489	*984*
21	Convert a decimal numbers into binary number	
	Value of N	*Output*
	5	*101*
	6	*110*
	7	*111*
22	Find the factors of an integer number.	
	Value of N	*Output*
	20	*1 2 4 5 10 20*
	30	*1 2 3 5 6 10 15*
	50	*1 2 5 10 25 50*
23	Divide an integer number **N** into two parts **n1** and **n2** in such a way so that the **n1** and **n2** are themselves prime number and the sum of **n1** and **n2** is equal to **N.**	
	Value of N	*Output*
	20	*(1, 19), (3, 17), (7, 13)*
	50	*(3, 47), (7, 43), (13, 37)*
	60	*(1, 59), (7, 53), (17, 43), (19, 41), (23, 37), (29, 31)*
	Do the following string operation	
01	Read a string or line and count the total number of character or length of the string.	
02	Delete the blank space of the string which will be given through keyboard.	
03	Count the total number of vowels and consonant of a string.	
04	Read a string or line and print it in the reverse order.	
05	Convert a string in the reverse case.	
06	Add a two string and place it into the third string.	
07	Add a string at the end of other string.	
08	Compare two strings and say the lager of it.	
09	Convert a string into upper case letter.	
10	Convert a string into lower case letter.	
11	Convert the first character of all words in a string into capital or upper case letter.	
12	Convert the last character of all words in a string into capital or upper case letter.	
13	Convert only the vowels into capital or upper case letter of a string.	

14	Convert only the consonant into capital or upper case letter of a string.
15	Convert only the vowels into small or lower case letter of a string.
16	Convert only the consonant into small or lower case letter of a string.
17	Convert the first character of all words in a string into small or lower letter.
18	Convert the last character of all words in a string into small or lower case letter.
19	Find the position of a specific character of a string.
20	Find the position of a specific word of a string.
21	Delete the first character of a string.
22	Delete the first word of a string.
24	Find a word of a string.
25	Replace a word in a string.
26	Find the frequency of a specific character of a string.
	Solve the following array problem
01	Calculate sum and average of an array element.
02	Find the maximum or minimum value of an array element.
03	Search a specific number of an array element and say its position if it is found.
04	Delete the first element of an array element.
05	Delete a specific number of an array element.
06	Find the sum and average of a two dimensional array element.
07	Calculate the sum of border element of a two dimensional array.
08	Calculate the sum of diagonal element of a squire matrix or squire two dimensional arrays.
09	Add two matrixes.
10	Multiply two matrixes.
11	Replace a specific number of an array element.
12	Insert a new element in the first position of an array.
13	Insert a new element in a specific position in an array where the position and new element will be given through the key board.
14	Insert a new element before a specific element in an array where the specific element will be given through a keyboard.
15	Sort an array in ascending and descending order by using the following method.

	(i)	Using bubble sort.
	(ii)	Linear sort.
	(iii)	Sequential sort.
	(iv)	Merge sort.
16	Using Binary search method, search a number from a linear array.	
17	Write a program that can merge two sorted arrays into a one sorted array.	
18	Write a program that can store and print array of structure which holds three fields like the (i) roll (ii) name (iii) marks. Here data type can be chosen by user.	
19	Apply problem number 11 to 17 for the case of array of structure.	
20	Solve from problem 1 to 19 using user define function passing parameter value.	

Problem on the File chapter

01	Write a program that can read a text file.
02	Count the number of characters, words, lines and sentences of a text file.
03	Write a program that can read some integer values from a file and transfer the odd number to the file named **oddnum** and transfer the even numbers to the file named **evennum**.