1. Execute the following code and write down the final values of all 6 variable in blanks.
   1. ***Pointers:***

Graphical user interface

Description automatically generated with medium confidence

1. Write a struct PakistaniCitizen with data members (name, age, gender). Create a function isCovidVaccinated() which takes a variable of struct PakistaniCitizen as argument and determines whether he/she is eligible for vaccination? (i.e. 12 years and above are eligible otherwise not). The function should return true if the Citizen can receive the vaccination otherwise it should return false. (Give function definition only). Finally, declare the variable of PakistaniCitizen in main function and call the function isVaccinated(). You should print “Citizen is Eligible for Vaccination” if function returns true and not eligible if it is false (***Structures***).
2. Write a function that takes a positive integer from the user and declares one dimensional dynamic array using new keyword. Function then initializes the array with random values and prints the sum of smallest and largest number of array (without sorting the array) (***Dynamic Array + Functions)***.
3. Write a function to display Fibnocci series. ***(Logic building Revision)***
4. Write a function to find factorial of a given no. with and without function. ***(Functions Revision)***
5. Write a program to find smallest and largest number from an array and swap these two numbers. ***(Arrays Revision)***
6. Re-write above program for user provided size of an array. ***(Dynamic memory allocation Revision)***
7. Write a program which takes input of 3 numbers in main function, take input of only those numbers who satisfy the following condition: Num / 5 % 7 = = 0 i.e. all the numbers when divided by 5 and then mod 7 should be 0. Program should tell user to input values again and again until the above mentioned condition is met. Call a function ‘change’, this function should increment the original values by 1 without returning anything.
8. Write a program to display sum of squares of all the odd numbers between 2 and 100. While calculating the sum skip those odd numbers where (number / 10 == 0 )
9. Write a program that asks the user to enter a word. The program will then repeat word for as many times as it has characters:  
     
   Word: Hello  
     
   Hello  
   Hello  
   Hello  
   Hello  
   Hello
10. Write a program to take information for student's id, name and marks in 6 subjects for 30 students. ***(Structure Revision)***
    * + - 1. Find heighest and lowest numbers in each subject.
          2. Find number of failures and pass students in each subject.