C++ GROUP ASSIGNMET

INSTRUCTION FOLLOW THE BELOW INSTRUCTIONS AND KINDLY NOTE THE WORK SHOULD BE SUBMITTED BY NEXT WEEK ON 16/3/2020 OBSERVE DEADLINE

PART 1 FROM YOUR GROUP ANSWER ANY 7 QUESTIONS FROM THIS PART

1. State and explain type modifiers used in C++.
2. State and explain any six variable types used in C++.
3. There are two kinds of expressions in C++. Discuss them.
4. Discuss variable scope in C++.
5. With an example, differentiate between global and local variable.
6. State and explain any three literals used in C++.
7. There are four data type modifiers in C++. Discuss them.
8. With an aid of an example in a program, write a program using any of the control statements in C++.
9. With an aid of a program, write a code using loops.
10. Define a function and discuss its parts.
11. A program can be called in any form in C++. Discuss how they can be called.
12. Differentiate between;
    a) Constructor and destructor.
    b) Overloading and Overriding.
    c) Inline and Friend functions.
    d) Pointers and Arrays.
13. There are three rules applied in inheritance. Discuss.
14. State and Explain types of inheritance.
15. State and explain any five operators used in C++.
16. Differentiate between the virtual functions and the pure functions as well as dynamic leakage and late binding.
17. Discuss the concepts of OOP and write code for any.
18. State advantages and disadvantages of abstraction.
19. State and explain the key fundamental statements in a program.
20. Discuss data encapsulation.
21. Exception handling is built upon three key words. Discuss.
22. Define dynamic memory and explain how it is divided.

PART TWO WRITE ANY 8 PROGRAMS FROM YOUR GROUPS TO PERFORM THE FOLLOWING

1. C++ Program to Check Prime Number By Creating a Function

2. C++ Program to Check Whether a Number can be Express as Sum of Two Prime Numbers
3. C++ program to Find Sum of Natural Numbers using Recursion
4. C++ program to Calculate Factorial of a Number Using Recursion
5. C++ Program to Find G.C.D Using Recursion
6. C++ Program to Convert Binary Number to Decimal and vice-versa
7. C++ Program to Convert Octal Number to Decimal and vice-versa
8. C++ Program to Convert Binary Number to Octal and vice-versa
9. C++ program to Reverse a Sentence Using Recursion
10. C++ Program to Calculate Power Using Recursion
11. C++ Program to Calculate Average of Numbers Using Arrays
12. C++ Program to Find Largest Element of an Array
13. C++ Program to Calculate Standard Deviation
14. C++ Program to Add Two Matrix Using Multi-dimensional Arrays
15. C++ Program to Multiply Two Matrix Using Multi-dimensional Arrays
16. C++ Program to Find Transpose of a Matrix
17. C++ Program to Multiply two Matrices by Passing Matrix to Function
18. C++ Program to Access Elements of an Array Using Pointer
19. C++ Program to Swap Numbers in Cyclic Order Using Call by Reference
20. C++ Program to Find the Frequency of Characters in a String
21. C++ Program to Find the Number of Vowels, Consonants, Digits and White Spaces in a String
22. C++ Program to Remove all Characters in a String Except Alphabets.
23. C++ Program to Find the Length of a String
24. C++ Program to Concatenate Two Strings
25. C++ Program to Copy Strings
26. C++ Program to Sort Elements in Lexicographical Order (Dictionary Order)
27. C++ Program to Store Information of a Student in a Structure
28. C++ Program to Add Two Distances (in inch-feet) System Using Structures
29. C++ Program to Add Complex Numbers by Passing Structure to a Function
30. C++ Program to Calculate Difference Between Two Time Period

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31. C++ Program to Store and Display Information Using Structure