C/C++/VC++ Assignment Questions

Set – 1

1. Create a class to store date. Add one public function which returns the number of days till the date from the start of the year.

2. Create user defined functions using pointers for any 5 standard library functions in string.h

3. Create a class called MathOp in which you will implement basic arithmetic operations.

Set – 2

1. Implement SortArray function.

2. i) Construct a class called SortNum with a member - an integer array.
   ii) You have to overload operator += to add a number to the array member, so that the contents of the array is sorted in ascending order.

eg: SortNum obj;

obj += num;

6   =>6

1   =>1, 6

7   =>1, 6, 7

3   =>1, 3, 6, 7

iii) Overload subscript operator, [] so that the contents of the member array can be accessed directly.

eg: SortNum obj;

cout << obj[i]; is possible

iv) Implement a conversion operator int() which returns the count of valid elements

eg: SortNum obj;

cout << obj; will print the count

```cpp
int main()
{
        SortNum obj;

        obj += 6;

        obj += 1;

        obj += 7;

        obj += 3;

        for(int i = 0; i < obj; i++)

        {

                cout << obj[i] << endl;

        }

        return 0;
}
output
1
3
6
7
```

Set – 3

1. Create a basic calculator application (+, -, *, /, =).

2. Create a dialog box application for entering your Personal details, Educational Qualification, Experience etc. Use proper dialog box controls. The details entered must be displayed in a Message Box with proper formatting upon clicking a button 'Show'.

3. Create a dialog box application for entering your Personal details, Educational Qualification, Experience etc. Use proper dialog box controls. The details entered must be displayed in a modal dialog with proper controls upon clicking a button 'Show'.

4. Create a DialogBox application without any controls and implement freehand draw functionality.

Set – 4

1. Re-do the phonebook application with ListCtrl.

2. Create a dialog box application for entering your Personal details, Educational Qualification, Experience etc. Use proper dialog box controls. The details entered must be displayed in a modal dialog with a ListCtrl upon clicking a button 'Show'.

3. Create a dialog application with 2 ListBoxes which will display odd numbers and even numbers. The number will be updated simultaneously in WM_TIMER handler, in every 500 milliseconds. You have use 2 integer variables, one each for odd number and even number. The timer is controlled by 2 buttons in the dialog: Start and Stop. Disable the start button after starting the timer and enable the Stop button. After stopping the timer, enable start button and disable stop button.

CWnd *pWnd = GetDlgItem(IDC_START);

pWnd->EnableWindow(FALSE); // disable   (GetDlgItem(IDC_START)->EnableWindow(FALSE);)

4. Construct an analog clock dialog application.

5. Create a dialog application without any controls and bounce a red bubble. (optional question)

Set – 5

1. Create a dialog box application for entering your Personal details, Educational Qualification, Experience etc. Use proper dialog box controls. The details entered must be displayed in a modal dialog with a ListCtrl upon clicking a button 'Show'. You need to store the details in appropriate non-template collection classes. It must have facilities to Add, Remove and Search.

2. Re-do the above question with Modeless dialog and no collection classes.

Set – 6

1) Create a dialog box application for entering your Personal details, Educational Qualification, Experience etc. Use proper dialog box controls. The details entered must be displayed in a modal dialog with a ListCtrl upon clicking a button 'Show'. You need to store the each one in a class and use CArray to store the set. It must have facilities to Add, Remove and Search.

2) Create an organizational structure tree in a tree control inside a DialogBox application.