Objective:

- The purpose of this quiz is to focus on the very basic fundamental concepts practiced so far in previous labs.

Question No 1: **(**10**)**

I hope you are familiar with the following ADT given in practice file of Stack. You are required to implement the following ADT.

```
class UndoRedo
{

        int capacity; //N // number of operations that can be memorized //decide rest of the data
        structure yourself

public:

        UndoRedo (int c = 10);
        void memoriseOperation(int op);
        int undo();
        int redo();

};
```

Question No 2: **(5)**

Write a function, which receives an array and shuffles the elements of the received array.

Question No 3: **(5)**

Devise a formula for storing following N order symmetric sparse matrix.

*				*
*	*			*
*		*		*
*			*	*
*				*

Sparse Matrix of Order N: where * shows the non-zero values

Question No 4: **(3)**

Give worst time bound of the following code segment.

```
for (int i=1; i^2 < N; i++)
{
        cout<<"what to do now";
}
```