int main

Q. Write code for Insertion Sort ?

⇒
```
# include <stdio.h>
# include <conio.h>
void insertion Sort (int arr [] , int n)
{
        int i , key, j;
        for (i=1; j<n; i++)
        {
            key = arr [i] ;
            j = i-1 ;
            while ( j >= o && arr [j] > key)
            {

                arr [j + i] = arr [j] ;
                j = j - 1;
            }
            arr [j + i] = key;
        }
}

        void print Array (int arr [] , int n)
        {
            int i ;
            for (i= 0; i<n; i++)
```

```cpp
        count << arr[i] << " ";
        cout
    count << end1;
}

int main ()
{
    int arr[] = { 12, 11, 13, 5, 6};
    int n= sizeof (arr) /sizeof (arr[0]);

    insertion Sort (arr, n);
    print Array (arr, n);

    return 0;
}
```

Output

5 6 11 12 13.

* Time Complexity :- $O(n^2)$

* Function definition f insertion Sort.

→ It is a simple sorting algorithm that builds the final sorted list one item at a time. It is much less efficient on large lists than more advanced algorithms such as quick, merge sort

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