5 Selection Sort
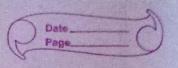
- Selection sort algorithm is a simple sorting algorithm which specifically an in-place comparison sorts. It is a technique to arrange the data in proper order.

- This Type of sorting is called "selection sort" because it works by repeatedly selecting smallest element

- If we want to sort array in increasing order then there are two ways through which we done this process.

2 selection Sort

array

index 0 1 2 3 4 5   n= 6
       7 8 16 25 13 1

logic for of program

```
for (i = 0, i<n-1; i++) {          // here min_index
    min_index = i ,                //    is 7

    for ( j = i+1; j<n; j++) {     // j is 8

        if (K[j]< K[min_index]) {
            min_index =j ,
        }
    }

    if (min_index != i) {
        temp = K[i];
        K[i] = K[min_index];
        K[min_index] = temp;
    }
```

program

1 minimum index is 0 and run loop for (i<n-1)
2 j= i+1 and run loop for (j<n an j=i+1)
   here
38 if K[j] is smaller then min index then value of min index
   is J
   end loop

4   If min-index is not equal to 1 then swap the value
    of min-index of array and 1 index of array