(1)

ADA

Lab - Test - 1

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4 - B

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3) ~~Sort~~ Selection Sort:

```
#include <stdio.h>
#include <time.h>
#include <conio.h>
#include <stdlib.h>
void selection_sort(int arr[], int n)
{
    int min = -1;
    int pos, temp;
    for(int i=0; i<n-1; i++)
    {
        min = arr[i];
        pos = i;
        for(int j=i+1; j<n; j++)
        {
            if(arr[j] < min)
            {
                pos = j;
                min = arr[j];
            }
        }
        temp = arr[i];
        arr[i] = arr[pos];
        arr[pos] = temp;
    }
```

```
}

int main()
{
    clock_t start, end;
    int arr[10000], size;
    printf("Enter size \n");
    scanf("%d", &size);
    for(int i=0; i<size; i++)
    {
        arr[i] = rand();
        printf("%d", arr[i]);
    }
    clock_t start
    start = clock();
    selection_sort(arr, size);
    end = clock();
    printf("Time taken to sort : %f", (double)
    (end-start)/ CLOCKS_PER_SEC);
}   return 0;
```

Modification:

```
void find_kth_largest(int arr[], int n,
int k)
{
    for(int i=0; i<k; i++)
    {
    printf("%d", arr[n-k-1];
}
```

→ find_kth_largest() should be called after selection sort.