



United International University
Department of Computer Science and Engineering
CSE 2215 Data Structures and Algorithms(Sec BD),
Class Test 1, Summer 2024
Total Marks: 20, Time: 30 minutes

1. Show the detailed simulation of the Binary Search algorithm for the search key 26 using the data mentioned below:

15 25 31 37 41 56 62 82 93 99

2. Show the detailed simulation of the Counting Sort algorithm for the data given below(Range 0-6). [7]

6 1 5 0 2 5 6 5 3 1 5

3. Discuss the best case time complexity of the following algorithm.

[6]

```
sum=0
for i in range(0, n):
    for j in range(0, i+1):
        if a[j]<a[i]:
            sum=sum+a[j]
print(sum)
```