ALGORITHM COMPLEXITY

1. What is the worst-case complexity of the Bubble Sort algorithm?

- [ ] O(log n)
- [ ] O(n)
- [ ] O(n * log n)
- [ ] O(n^2)

2. What is the average time complexity of Quick Sort?

- [ ] O(log n)
- [ ] O(n)
- [ ] O(n * log n)
- [ ] O(n^2)

3. What is the time complexity of Merge Sort?

- [ ] O(log n)
- [ ] O(n)
- [ ] O(n * log n)
- [ ] O(n^2)

4. What is the worst-case time complexity of Linear Search?

- [ ] O(1)
- [ ] O(log n)
- [ ] O(n)
- [ ] O(n^2)

5. What is the worst-case time complexity of Binary Search?

- [ ] O(1)
- [ ] O(log n)
- [ ] O(n)
- [ ] O(n * log n)

6. What is the time complexity of the Fast Fourier Transform (FFT)?

- [ ] O(1)
- [ ] O(n)
- [ ] O(n log n)
- [ ] O(n^2)

7. What is the complexity of the Fast Inverse Square Root algorithm?

- [ ] O(1)
- [ ] O(log n)
- [ ] O(n)
- [ ] O(n * log n)

8. What is the time complexity of a brute force solution for the Traveling Salesman Problem (TSP)?

- [ ] O(n)
- [ ] O(n log n)
- [ ] O(n^2)
- [ ] O(n!)

9. What is the time complexity of a recursive Fibonacci sequence function?

- [ ] O(1)
- [ ] O(log n)
- [ ] O(n)
- [ ] O(2^n)

10. Which of the following algorithms has O(n^3) complexity?

- [ ] Bubble sort
- [ ] Binary search
- [ ] Standard matrix multiplication
- [ ] Dijkstra's algorithm