

**School of Engineering**  
**Department of Computer Science and Engineering**

MRU / SOE/ CSE/ R-22 / MR22-1CS0141/ 2023-2024

**Assignment Test- 1**

**Subject : DAA/ MR22-1CS0141**  
**Submission Dates : 26-09-2023 to 30-09-2023**

1. A) Write the Characteristics of an Algorithm.  
B) Describe the Pseudo-Code Conventions.
2. Illustrate Space complexity and Time Complexity with suitable examples.
3. Summarize the Asymptotic notations with examples.
4. Interpret the Recursive & Iterative Binary Search algorithm with suitable examples.
5. Demonstrate the Merge sort (Stable sort (or) Not in-place) algorithm and Solve for n=10 elements: 13, 48, 26, 19, 37, 28, 42, 33, 22 and 17.
6. Generalize the steps of partition exchange sort (Quick Sort (or) in-place Sort (or) unstable sort) algorithm and trace this algorithm for n =10 elements: 13, 48, 26, 19, 37, 28, 42, 33, 22 and 17.
7. Discuss about Analysis of Quick Sort algorithm.