3rd Semester, B. Voc.(IT)
Paper: (INT-VC-3016) Data Structure and Algorithm

Course Outcomes:-
Knowledge gained:

• Describe how arrays, records, linked structures, stacks, queues, trees, and graphs are represented in memory and used by algorithms

• Describe common applications for arrays, records, linked structures, stacks, queues, trees, and graphs • Write programs that use arrays, records, linked structures, stacks, queues, trees, and graphs

• Demonstrate different methods for traversing trees

• Illustrate various technique to for searching, Sorting and hashing

• Describe the concept of recursion, give examples of its use, describe how it can be implemented using a stack

• Discuss the computational efficiency of the principal algorithms for sorting, searching, and hashing.

• Summarize different categories of data Structures.

Programme Specific Outcomes:-

Skills gained:

• Compare alternative implementations of data structures with respect to performance

• Compare and contrast the benefits of dynamic and static data structures implementations

• Explain the significance of dynamic memory management Techniques

• Identify different parameters to analyze the performance of an algorithm.

Competency developed:

• Choose appropriate data structures to solve real world problems efficiently.

• Design and implement an appropriate hashing function for an application

• Design algorithms to perform operations with Linear and Nonlinear data structures