TECNIA INSTITUTE OF ADVANCED STUDIES
Grade 'A' Institute
Department of Information, Communication & Technology
Bachelor of Computer Applications (BCA)
Scheme and Syllabus (w.e.f. Academic Session 2024-25)
As per UGC Curriculum & Credit Framework for Undergraduate Programme (CCFUP)
(Dec 2022): GGSIP University, Delhi

COURSE CODE BCA 106T
COURSE NAME: DATA STRUCTURES AND ALGORITHMS

LEARNING OBJECTIVES:
In this course, the learners will be provided expertise in
1. Understanding of the basic concepts of data structures and their operations like, insertion, deletion, searching and sorting
2. Design algorithms and pseudo codes of various linear and non-linear data structures

PRE-REQUISITES:
1. C Programming Skills
2. Discrete Mathematics

COURSE OUTCOMES (COs):
After completion of this course, the learners will be able to:

CO #	Detailed Statement of the CO
CO1	Familiarize the basics of data structures and algorithms.
CO2	Understand and apply linear and nonlinear data structures and their operations.
CO3	Compare and implement searching, sorting and hashing techniques.
CO4	Appraise and determine the correct data structure for any given real world problem.

Course Outcomes	Program Outcomes (Scale – 1: Very Low, 2: Low,3:Medium,4:High)									
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	4	1	4	4	2	4	2	1	1	4
CO2	4	1	4	2	2	4	2	1	1	4
CO3	4	1	4	4	2	4	3	1	1	4
CO4	4	1	4	4	2	4	3	1	1	4