Total No. of Questions – [2]

Total No. of Printed Pages: 1

G.R. No.	

PAPER CODE	U124-345

March 2024 (INSEM) EXAM

F.Y.B. TECH. COMP. SCIENCE & ENGG. (AI)

(SEMESTER - II)

COURSE NAME: Fundamentals of Data Structures

COURSE CODE: CA12234

(PATTERN 2023)

Time: [40 min]

[Max. Marks: 20]

(*) Instructions to candidates:

1) **Figures to the right indicate full marks.**
2) **Use of scientific calculator is allowed**
3) **Use suitable data wherever required**
4) **Solve any two sub questions from Question 1 and 2**

Question No.	Question Description	Marks	CO mapped	Blooms Taxonomy Level
Q.1	a) Compare and Contrast Linear and Non-linear Data structures with proper examples.	[5]	1	Understand
	b) Demonstrate the static and dynamic memory allocation mechanism with examples.	[5]	1	Understand
	c) Interpret the term Abstraction with example. Discuss Abstract Data Type with proper ADT model and examples.	[5]	1	Understand
Q2	a) Demonstrate different operations on arrays such as insert an element at location 3, delete an element and reverse the array elements. Display the array after every operation.	[5]	2	Apply
	b) Build an insert operation on Doubly Linked list after a given node. Write the pseudo code and explain with example.	[5]	2	Apply
	c) Construct a circular linked list and discuss its advantages and disadvantages as compare to a singly linked list.	[5]	2	Apply