NETTUR TECHNICAL TRAINING FOUNDATION
DIPLOMA IN INFORMATION TECHNOLOGY & DATA SCIENCE – CP09
II SEMESTER REGULAR & SUPPLEMENTARY EXAMINATION-JUNE 2023

Subject: Data structures Using Python   **Total Time: 2 Hr.**
Subject Code: CP09209T   **Total Marks: 50**

PART B

1.0 ANSWER ANY EIGHT OF THE FOLLOWING   **2*8=16**

1.1 What is linear data structure? Give some example

1.2 How to declare an array in python?

1.3 What is Linked lists?

1.4 Why do we use stacks?

1.5 Define sorting.

1.6 What is Tree Traversing?

1.7 What is Recursion?

1.8 What is binary tree in data structure?

1.9 What type of memory allocation is referred for Linked lists?

1.10 How will you get the length of a list?

2.0 ANSWER ANY SIX OF THE FOLLOWING   **3*6=18**

2.1 How to add array elements? Explain with example.

2.2 What is the difference between append and extend?

2.3 Mention what is the difference between Linear array and Linked list?

2.4 What are the two major queue operations? Explain

2.5 Explain different types of binary tree traversing algorithms

2.6 What is the difference between a list and a tuple in Python?

2.7 What are the advantages of data structures?

2.8 What is meant by Searching in python? Explain different types of searching

3.0 ANSWER ANY FOUR OF THE FOLLOWING   **4*4=16**

3.1 What is list in Python? Explain the methods available with its operations.

3.2 Explain the different types of data structures

3.3 List out the different sorting methods and explain any two

3.4 Explain about List comprehension, with some examples

3.5 Write an algorithm to implement pop operation in stack

3.6 What are the advantages &disadvantages of recursive programming over iterative programming?

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