

DATA STRUCTURE USING PYTHON

CODE NO. : 2252

Time : 2:30 Hours]

[Maximum Marks : 50

NOTES:

- Attempt all questions.
- Students are advised to specially check the Numerical Data of question paper in both versions. If there is any difference in Hindi Translation of any question, the students should answer the question according to the English version.
- Use of Pager and Mobile Phone by the students is not allowed.

Q1) Answer any two of the following :

[2×5=10]

- What is Data Structure? Write different types of Data Structure.
- Explain data type and data variable.
- Define array and Explain various types of array.

Q2) Answer any two of the following:

[2×5=10]

- What is BST? Explain with Example.
- Explain different types of queue.
- Define stack and Explain Operations on Stack?

Q3) Answer any two of the following :

[2×5=10]

- Explain insert operations on singly linked - list?
- Explain delete operations on doubly linked - list?
- Explain various representations of graph.

Q4) Answer any two of the following:

[2×5=10]

- Write down the algorithm to push and pop operation in stack.
- Write down the algorithm to insert and delete operation in queue.
- Explain quick sort with example?

Q5) Answer any two of the following:

[2×5=10]

- Define linked list? Explain various type of linked list.
- Write down the algorithm to delete last node of the linked list?
- Write difference between Tree and Graph?