

**UCS1504 - Artificial Intelligence Lab**  
**Department of CSE, SSN College of Engineering**

**2. Uninformed Search Strategies – DLS & IDS**

**25.08.2022**

Write a python function for the following:

1. Write a function to generate a random sequence for **n** distinct numbers by specifying the *initial value* and *end value*. Print the list.
2. Use a suitable data structure to keep track of the parent of every state and show the structure as a state space representation for the list created.
3. Write a function to print the sequence of states and actions from the *initial state to the goal state* using DLS with suitable data structure.  
Hint: Read limit value and goal state
4. Write a function to print the sequence of states and actions from the *initial state to the goal state for every level* using IDS with suitable data structure.  
Hint: Read limit value and goal state.

Content to be written in **Observation** for output verification:

- i. Date
- ii. Ex. No
- iii. Title
- iv. Aim
- v. Data structure used (with justification)
- vi. Logic applied or Algorithm (short description)
- vii. Sample input and output for each function