



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

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COIMBATORE-641 035, TAMIL NADU



Puzzle-1

The robot in the maze needs to reach the goal. You can use the following search algorithms to guide it:

- Breadth-First Search (BFS)
- Depth-First Search (DFS)

Tasks:

1. **Path Identification:**
 - Using BFS, identify the shortest path from the robot's starting position to the goal.
 - Highlight the steps the robot takes.
2. **Comparison:**
 - Using DFS, trace a possible path to the goal. Does DFS always find the shortest path? Explain why or why not.
3. **Analysis:**
 - Which algorithm would you recommend for this maze? Justify your answer based on time and space complexity.

