Artificial Intelligence (AI2002)

Quiz#1

Name:……………..   Roll No:…………………..

Q1: A robot vacuum cleaner is designed to find the cleanest path to reach a charging station. It evaluates nearby areas based on dust levels and always moves to the least dusty area. How the Hill Climbing algorithm applies to this scenario and identify a potential limitation it might face.

Q:2 A self-driving car navigates through a busy city, stopping at traffic signals, avoiding pedestrians, and adjusting speed based on traffic conditions.

Identify the environment type and agent type for this scenario.

Q:3 A robot is navigating a maze and must find the shortest path to the exit. Should it use BFS or DFS, and why?