



# CITY ENGINEERING COLLEGE

Approved by AICTE New Delhi & Affiliated by VTU, Belagavi  
Doddakallasandra, Off Kanakapura Main Road,  
Next to Gokulam Apartment, Bangalore - 560 062.



## Department of Artificial Intelligence & Machine Learning

### Assignment - I

Semester	III	Date:	22.02.2025
Subject Name	Artificial Intelligence	Deadline:	12.03.2025
Subject Code	BAD402		

1. Define Artificial Intelligence. Explain The foundation of AI in details
2. Explain all four different approaches in AI
3. Give PEAS Specification for 1. Medical Diagnostic System 2. biometric authentication system 3. Tomato classification system
4. Differentiation
  1. Fully Observable Vs Partially Observable
  2. Single agent Vs Multiagent
  3. Deterministic Vs Stochastic
  4. Static Vs Dynamic
  - 5.episodic vs sequential
5. Explain 5 components and well defined problem. Consider an 8-puzzle problem as an example and explain
6. Write an algorithm for Breadth-First Search and Explain with an example
7. Explain Depth First Search Techniques in details
8. illustrate the separation property of GRAPH-SEARCH on a rectangular-grid problem. Write the 2 differences between Informed and Uninformed Search
9. Formulate an 8-queens problem with a correct and an incorrect solution Comment on protein design problem and role of AI in solving it
10. With an algorithm explain Uniform cost Search problem
11. Explain Iterative Deepening Depth First Search