


**Assignment-1, Session: 2025-2026**

[Programme: B.Tech. CSE] [Semester: VI]

Course Title: Artificial Intelligence		Max Marks: 20		
Course Code: CSE472				
<b>Instructions:</b>	1. All questions are compulsory 2. Assume missing data suitably, if any 3. All questions should be of higher learning.	BTL Level (K)		
Unit 1	CO1: Relate the goals of Artificial Intelligence and AI and non-AI solutions.			
Unit 2	CO2: Analyze various AI uninformed and informed search algorithms.			
<b>Q.No.</b>	<b>Section A (4×3=12 Marks)</b>	<b>Unit</b>	<b>COs</b>	<b>K</b>
1	Define in your own words: (a) intelligence, (b) artificial intelligence, (c) expert systems, (d) knowledge base and rule base, and (e) logical reasoning.	Unit 1	CO1	K1
2	Define an intelligent agent. Explain the roles of sensors and actuators with a suitable real-world example.	Unit 1	CO1	K2
3	List and describe the five components of problem formulation. Use the 8-puzzle problem as an example.	Unit 2	CO2	K3
4	Compare the following uninformed search strategies: BFS, Uniform-Cost Search, and Depth-Limited Search.	Unit 2	CO2	K3
<b>Section B (2×4=8 Marks)</b>				
5	What is rationality in the context of intelligent agents? How does it differ from perfection or omniscience?	Unit 1	CO1	K3
6	Describe the working of <i>A search algorithm</i> *. Why is it considered both complete and optimal under certain conditions?	Unit 2	CO2	K4