

**Department CSE-AI & ML**  
**Assignment-1 for Slow Learner**  
**Artificial Intelligence -(BCAI-501)**  
**Submission Date-22/11/2024**

**Date-18/11/2024**

1. Define artificial intelligence (AI) in your own words. How does it differ from human intelligence? (CO1)
2. What are the challenges and obstacles that need to be addressed to realize the full potential of AI? Discuss technical, ethical, and social challenges. (CO1)
3. Discuss the different types of intelligent agents. Explain the differences between simple reflex agents, model-based reflex agents, goal-based agents, utility-based agents, and learning agents. (CO2)
4. Describe the role of expert systems in AI. What are their limitations and advantages? (CO2)
5. Compare and contrast different search algorithms (e.g., uninformed search, informed search, heuristic search). (CO2)
6. Explain the concept of a game tree. How can game-playing AI agents use minimax and alpha-beta pruning? (CO2)
7. How might AI transform various industries and sectors? Provide examples of specific applications and their potential impact. (CO1)
8. What are the different types of AI systems? Explain the distinctions between narrow AI, general AI, and superintelligence. (CO1)