

4. Attempt any *one* part of the following: 10 x1 = 10

- (a) Demonstrate Alpha-Beta pruning algorithm with suitable example.
- (b) Define Heuristic search. Explain Greedy Best First Search algorithm with an example.

5. Attempt any *one* part of the following: 10x1 = 10

- (a) Solve following 8-puzzle problem with the help of A* Algorithm

2	8	3
1	6	4
7		5

Initial State

1	2	3
8		4
7	6	5

Final State

- (b) There is a monkey at the door in a room. In the middle of the room a bunch of banana is hanging from the ceiling. The monkey is hungry and wants to get the banana but he cannot stretch high enough from the floor. At the window of the room there is a box. Represent the information used in the above mentioned problem in predicate logic.

6. Attempt any *one* part of the following: 10x1 = 10

- (a) Explain Trust and Reputation in Multi-Agent Systems with examples.
- (b) Define Intelligent agent. Also explain four classes of agents in architectures for intelligent agents.

7. Attempt any *one* part of the following: 10x1 = 10

- (a) Describe the role of computer vision in Artificial Intelligence.
- (b) Define pattern recognition. Explain design principles of pattern recognition systems with suitable examples.