

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.TECH MIDSEM EXAMINATION
7th SEMESTER

ACY-2021-22 (ODD SEM)

Subject Name (Code): Artificial Intelligence (203105441)

Branch: CSE

Date: 05/08/2022

Time: 10.30 AM TO 12.00 PM

Total Marks: 40

Sr. No.	Marks
Q.1 (A) One line Questions	05
1. What is heuristic function?	
2. Artificial Intelligence is about__ .	
3 _____ was known as the father of Artificial Intelligence.	
4. Is a * An informed search?	
5. What is the complexity of minimax algorithm in AI?	
(B) Compulsory Question	05
1. The application/applications of Artificial Intelligence is/are	
a. Expert Systems b. Gaming c. Vision Systems d. All of these	
2. Which algorithm is used in the Game tree to make decisions of Win/Lose?	
a. Heuristic Search Algorithm b. DFSIBFS algorithm	
c. Greedy Search Algorithm d. MiniMax algorithm	
3. The search algorithm which is similar to the minimax search, but removes the branches that don't affect the final output is known as__."	
a. Depth-first search b. Breadth-first search	
c. Alpha-beta pruning d. None of the above	
4. When will Hill-Climbing algorithm terminate?	
a) Stopping criterion met b) Global MiniMax is achieved	
c) No neighbor has higher value d) All of the mentioned	
5. Which search strategy is also called as blind search?	
a) Uninformed search b) Informed search	
c) Simple reflex search d) All of the mentioned	
Q.2 Attempt any four Short Questions)	12
(1) What is state space of a problem?	

(2) Discuss limitations of Hill climbing search method.

(3) What is production system and its characteristics?

(4) Why do we need Artificial Intelligence?

(5) What is alpha cut off and beta cutoff?

Q.3 Attempt any two 08

(1) Describe Breadth First Search. Comment on the optimality of this method.

(2) Explain the Iterative Deepening Search algorithm.

(3) Explain the working of minimax algorithm with an example.

QA (A) What is artificial Intelligence? Explain the Major areas of Artificial Intelligence. 05

(B) Explain alpha beta pruning algorithm with example. 05

OR

(B) Explain A* search algorithm with example. 05