

IT 504 (A) Artificial Intelligence
Assignment Question Bank
Unit 1

- Q1. Explain Artificial Intelligence. Also discuss the areas where it can be used.
- Q2. Define the various types of production system & give its characteristics.
- Q3. Explain and differentiate between Breadth First Search and Depth First Search.
- Q4. Describe A* (A Star) algorithm with example.
- Q5. Solve the 8 puzzle problem using best first search:

| | | |
|---|---|---|
| 1 | | 2 |
| 7 | 8 | 3 |
| 6 | 5 | 4 |

Initial

| | | |
|---|---|---|
| 1 | 2 | 3 |
| 8 | | 4 |
| 7 | 6 | 5 |

Goal

- Q6. Solve the Water Jug problem having 5 and 3 liter jug with goal to have 1, 2, 3, 4, 5 liter in 5 liter jug with no measuring marks.
- Q7. Describe the term Problem. Explain characteristics of problem.
- Q8. Write the production rule for water jug problem where you are having 4 and 3 liter jug and you have to get exactly 2 liter of water in 4 liter jug. Jugs are not having measuring marks and endless supply of water is available.
- Q9. What do understand by AO* algorithm with example?
- Q10. Explain problems in Hill Climbing technique.