PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR
DEPARTMENT OF COMPUTER TECHNOLOGY
ACADEMIC SESSION : 2022 - 2023 (ODD SEMESTER)

Assignment - 1

Subject	: Artificial Intelligence (BECT505T)	**Semester**	: VII A / B
Subject Teachers	: Dr. (Mrs) A.V.Dehankar/ Mrs Pragati Budhe	**Date of Display**	: 01/09/2022
Unit	: I , II & II(1/2)	**Date of Submissin**	15/09/2022

On completion of the course the students will be able to-

CO1	Explain the concepts of AI, its importance in various fields and basics of AI problem solving techniques with more stress on various problem characteristics.
CO2	Illustrate various search techniques and understand various types of knowledge representation schemes.
CO3	Understand and apply various non-formal knowledge representation methods and statistical reasoning methods in AI problem solving.

Questions	Mapping with COs
1. **a)** Define AI and Applications of AI.	**CO1**
b) Give the state space representation of the water jug problem and give one solution to it.	**CO1**
2. **a)** What is a Production system? What are its characteristics?	**CO1**
b) Write and explain various AI problem characteristics in short.	**CO1**
3. **a)** Why do we need heuristic function ? explain the heuristic function to solve 8 puzzle problem.	**CO2**
b) What is Best First Search Algorithm? Give its stepwise illustration with respect to suitable example.	**CO2**
4. **a)** Write the differences between Simple and steepest ascent hill climbing algorithm.	**CO2**
b) What are various approaches to knowledge representation? Explain in detail.	**CO2**
5. **a)** Write short notes on 1) Scripts 2) Frames	**CO3**
b) What is Semantic Network? Explain its advantages and disadvantages.	**CO3**

Dr. (Mrs) A.V.Dehankar/ Mrs Pragati Budhe   **Dr. (Mrs.) N. M. Thakare**

(Subject Teacher)   (HOD, CT)