

Total No. of Questions : 4]

SEAT No. :

**P8869**

[Total No. of Pages : 1

**Oct-22/TE/Insem-631**

**T.E. (Artificial Intelligence and Data Science)**

**ARTIFICIAL INTELLIGENCE**

**(2019 Pattern) (Semester - I) (310253)**

*Time : 1 Hour]*

*[Max. Marks : 30*

*Instructions to the candidates:*

- 1) Answer questions Q.1 or Q.2, Q.3 or Q.4
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Assume suitable data if necessary.

- Q1)** a) What is AI? Explain risk and benefits of AI. [5]  
b) What is Intelligent Agent? Explain structure of agent and example with PEAS Property for Automatic Taxi Driving. [10]

OR

- Q2)** a) Differentiate between informed and uninformed search algorithms also explain iterative deepening search in short. [5]  
b) i) Define state-space search technique  
ii) Define CSP. Solve SEND + MORE

[10]

- Q3)** a) Explain the concept of Rationality [5]  
b) i) Explain problem solving agents with suitable example.  
ii) Explain learning agents with its components.

[10]

OR

- Q4)** a) Differentiate between model-based agents & utility-based agents [5]  
b) Explain Min Max Tree. Solve alpha-beta tree search for following search problem. Also given minimum two advantages of alpha beta algorithm over min max algorithm. [10]

