

Total No. of Questions : 4]

P5123

SEAT No. :

[Total No. of Pages : 1

[6187]-530

**T.E. (Artificial Intelligence and Data Science) (Insem)**  
**ARTIFICIAL INTELLIGENCE**  
**(2019 Pattern) (Semester - I) (310253)**

*Time : 1 Hour]*

*[Max. Marks : 30*

*Instructions to the candidates:*

- 1) Answer four 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) Explain different forms of Agent. With example. [8]  
b) Explain the significance of PEAS in AI. [7]

OR

- Q2)** a) Explain any four type of task environment with example. [8]  
b) Explain “Simple Reflex based Agent” with the help of schematic diagram or pseudo code. [7]

- Q3)** a) Explain A\* algorithm and write its pseudo code. [7]  
b) Write Min-max Search Algorithm for two players. How use of alpha and beta cut-offs will improve performance? [8]

OR

- Q4)** a) Explain hill climbing algorithm. Explain plateau, ridge, local maxima and global maxima. [7]  
b) Define Heuristics. Explain the significance of Heuristic function in the informed search with suitable example. [8]

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