Total No. of Questions : 4]

SEAT No. :

PA-10313

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T.E. (Computer Engineering) (AIML) (Insem)
ARTIFICIAL INTELLIGENCE (Honors)
(2019 Pattern) (Semester-II) (310303)

Time : 1 Hour] *[Max. Marks : 30*

Instructions to the candidates:

1) ***Answer Q.1 or Q.2, Q.3 or Q.4.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***
4) ***Assume suitable data, if necessary.***

Q1) a) Explain the following terms **[5]**
- i) Covariance
- ii) Correlation Coefficient
- iii) Chi Square

b) What is Artificial Intelligence? How is it different from Machine Learning? **[5]**

c) What is Rationality? Describe Ideal Rational Agent. **[5]**

OR

Q2) a) What is the relationship between Covariance, Correlation Coefficient, Chi Square? **[5]**

b) How is the task environment specified? Write the PEAS description of the task environment for an automated taxi. **[5]**

c) What are the four kinds of basic Agent Programs? Explain any 1 in detail. **[5]**

Q3) a) List and explain any 2 problems that fall in the category of constraint satisfaction problems. **[5]**

b) Solve the CSP (crytarithmatic problem) SEND+MORE=MONEY. **[5]**

c) Explain the A* algorithm in detail. **[5]**

OR

Q4) a) What are the different types of Local Consistency in CSP. **[5]**

b) Explain the following functions in relation to A* algorithm f, g and h. **[5]**

c) What is Hill Climbing Search? Explain the following concepts w.r.t Hill Climbing Search. Local maxima, Global maxima, Ridge, Plateau. **[5]**