

Total No. of Questions : 8]

SEAT No. :

PB2528

[6263]-426

[Total No. of Pages :2

B.E. (Honors) (Artificial Intelligence and Machine Learning)

(Computer Engineering)

MACHINE LEARNING

(2019 Pattern) (Semester-VII) (410301)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6 and Q.7 or Q.8.
- 2) Figures to the right indicate full marks.
- 3) Neat diagrams must be drawn wherever necessary.
- 4) Make suitable assumption whenever necessary.

Q1) a) What is curse of dimensionality? Explain SVM in detail. **[8]**

b) Write note on regression and kernels. **[9]**

OR

Q2) a) Explain Random Forest and overfitting in detail. **[8]**

b) Write note on adaptive Nearest Neighbour. **[9]**

Q3) a) Explain Learning Boolean Function in detail. **[9]**

b) Explain two class & multiclass discrimination. **[9]**

OR

Q4) a) What is Learning Time & Recurrent Network? Explain in detail. **[9]**

b) Explain Bayesian Neural Network in detail with the help of example. **[9]**

Q5) a) What is association rule mining? Explain the Apriori algorithm with help of example. **[8]**

b) Explain the proximity matrices in detail. **[9]**

OR

P.T.O.

- Q6)** a) Explain the following: [8]
- i) K-medoids
 - ii) Hierarchical clustering
- b) Explain the self-organizing maps in detail. [9]

- Q7)** a) Explain in detail the discrete markov process in detail. [9]
- b) Explain in detail the Hidden Markov model in detail. [9]

OR

- Q8)** a) What are different graphical models? Explain any two in detail. [9]
- b) What is belief propagation? Explain Chains, trees, Olytrees, Junction Trees. [9]

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