

Total No. of Questions : 4]

SEAT No. :

PE-322

[Total No. of Pages : 2

[6580]-693

B.E. (Artificial Intelligence and Data Science) (Insem.)

MACHINE LEARNING

(2019 Pattern) (Semester - VII) (417521)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

- 1) Answer Q1 or Q2, Q3 or Q4.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figure to the right indicates full marks.
- 4) Assume suitable data, if necessary.

- Q1)** a) Describe Machine Learning and highlight its key differences from traditional programming Methods. [5]
- b) Explain the main difference between Linear Discriminant Analysis (LDA) and Principal Component Analysis (PCA) in reducing dimensions. [6]
- c) Write a note on Reinforcement Learning. [4]

OR

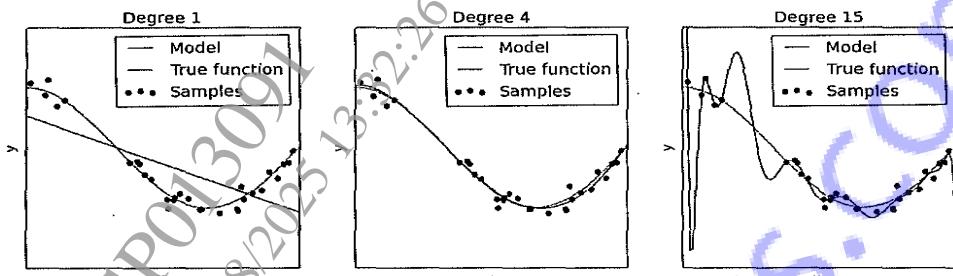
- Q2)** a) What is a logical model in the context of Machine Learning? [5]
- b) What distinguishes unsupervised learning from supervised and semi-supervised learning techniques? [6]
- c) Explain Grouping and Grading models in a machine learning with example? [4]

- Q3)** a) Elaborate decision tree regression and random forest regression. [6]
- b) Differentiate between multivariate regression from univariate regression? [4]
- c) Explain bias-variance trade-off with neat diagram. [5]

P.T.O.

OR

- Q4) a)** Which one of these is Underfit or Overfit? Why? Comment with respect to Bias and Variance. [6]



- b)** Explain any two evaluation metrics in regression model. [4]
c) List and Explain any two different types of Regression. [5]

SPPU Question Papers