Total No. of Questions : 06]

P1450

B.E./Insem/APR-245 B.E. (Computer Engineering) MACHINE LEARNING (2015 Pattern)

Time : 1 Hour] Instructions to the candidates:

- 1) Attempt questions Q1 or Q2, Q3 or Q4, Q5 or Q6.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Assume suitable data if necessary.

Q1) a) Define Machine learning and state two examples or applications of Machine Learning in our day to day lives. [5]

b) What do you mean by supervised and Unsupervised learning? Explain one example of each. [5]

OR

- **Q2)** a) What is principal component Analysis (PCA), when it is used? [5]
 - b) What do you mean by dictionary learning? What are its applications?[5]
- Q3) a) Justify the statement: Raw data has a significant impact on feature engineering process.
 - b) Explain different mechanisms for managing missing features in a dataset? [5]

OR

- Q4) a) With reference to feature engineering, explain data scaling and normalization tasks? [5]
 - b) What are the criteria or methodology for creation of Training and Testing data sets in machine learning methods? [5]

P.T.O.

[*Max. Marks* : 30

SEAT No. :

What do you mean by a linear regression? Which applications are best **Q5)** a) modeled by linear regression? [5] Write a short note on : Types of regression [5] b) OR *Q6*) Write short notes on (any 2) [10] Linearly and non-linearly separable data a) arve arve Ale Classification techniques Anon and anon and a state of the state of the second secon **BE/Insem/APR-245**