

Total No. of Questions : 06]

SEAT No. :

P1450

[Total No. of Pages : 2

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

*Time : 1 Hour]*

*[Max. Marks : 30*

*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. [5]
- 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.**

- Q5)** a) What do you mean by a linear regression? Which applications are best modeled by linear regression? [5]  
b) Write a short note on : Types of regression [5]

OR

- Q6)** Write short notes on (any 2) [10]  
a) Linearly and non-linearly separable data  
b) Classification techniques  
c) ROC curve

