

**B. TECH. (CBCS - 2014 COURSE) SEM - VIII (COMPUTER  
ENGG.) : SUMMER - 2018**

**SUBJECT: MACHINE LEARNING**

Day: **Saturday**  
Date: **02/06/2018**

**S-2018-4665**

Time: **02.30 PM TO 05.30 PM**  
Max Marks : **60**

**N.B. :**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat diagrams wherever necessary.
- 4) Use of nonprogrammable calculator is allowed.

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- Q.1 a)** Enlist and explain goals and applications of Machine Learning **(05)**
- b)** Explain the structure of Learning Systems. **(05)**
- OR**
- Q.1 a)** Explain the concept of Machine Learning with example. **(05)**
- b)** Write a short on Learning and Designing. **(05)**
- Q.2 a)** Explain Supervised Learning with example. **(05)**
- b)** Explain Linear based model in detail. **(05)**
- OR**
- Q.2 a)** What is Unsupervised Learning? Explain in detail. **(05)**
- b)** Explain Algebraic model in detail. **(05)**
- Q.3 a)** Explain Support Vector Machine in detail. **(05)**
- b)** Write short note on Rule Based Classification. **(05)**
- OR**
- Q.3 a)** What is Classification? Explain Naïve Bayes Classifier. **(05)**
- b)** Write short note on Precision & Recall measures. **(05)**
- Q.4 a)** Differentiate between Classification and Regression. **(05)**
- b)** Explain Linear Regression with example. **(05)**
- OR**
- Q.4 a)** Enlist and explain various issues in Classification. **(05)**
- b)** What is Logistic Regression? Explain in detail. **(05)**
- Q.5** What is Clustering? Explain K-means clustering algorithm with its advantages and disadvantages. **(10)**
- OR**
- Q.5** Explain the concept of Neural Networks and Anomaly Detection in detail. **(10)**
- Q.6** Enlist and explain various methods for increasing accuracy. **(10)**
- OR**
- Q.6** Enlist and explain various features of machine learning tools. **(10)**

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