Roll No. ⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚   **Total No. of Pages : 01**

Total No. of Questions : 08

M.Tech. (CSE Engg.) Big Data (PIT) (Sem.–2)
MACHINE LEARNING
Subject Code : CSBE-217
Paper ID : [51093]

Time : 3 Hrs.   **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :
1.   **Attempt any FIVE questions out of EIGHT questions.**
2.   **Each question carries TWELVE marks.**

Q1   a)   Describe the perspectives and issues in Machine Learning.   (6)

     b)   How decision trees are used in Machine Learning?   (6)

Q2   a)   What is LMS Algorithm? How it is used in supervised learning?   (6)

     b)   What are support vector machines? Discuss its uses.   (6)

Q3   a)   Write the steps to evaluate Machine Learning Algorithms.   (6)

     b)   Write a short note on feature selection methods in Machine Learning.   (6)

Q4   What is PCA in machine learning? How to calculate the Principal component Analysis?
                                                                                                     (12)

Q5   Define following :

     a)   Use of Machine Learning in speech recognition.   (6)

     b)   Heuristic space search.   (6)

Q6   What is naive Bayes classifier algorithm? How we can make Predictions with Naive
     Bayes classifier?   (12)

Q7   What are learning sets of rules in Machine Learning? Discuss the sequential covering
     approach to learning rules.   (12)

Q8   a)   How EM algorithm is used for data clustering in machine learning?   (6)

     b)   What is hypothesis space in machine learning?   (6)