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Uni. Roll No. …….

Program: M.Tech. (Computer Science and Information Technology)
Semester: 1st
Name of Subject: Machine Learning
Subject Code: MCIT-106
Paper ID: 17121

07-07-21(M)

Time Allowed: 02 Hours **Max. Marks: 60**

NOTE:

1) Each question is of 10 marks.
2) Attempt any six questions out of nine
3) Any missing data may be assumed appropriately

Q1. Compare Machine Learning with traditional programming. List the different applications of machine learning.

Q2. How the performance of two machine learning models can be evaluated on the given data?

Q3. Two machines are utilized to produce wrenches. First machine produces 30 wrenches/hr and second machine produces 40 wrenches/hr. Out of the total wrenches produced, 1% are defective and each machine contributes equally in defective parts. Using Bayes theorem, calculate the probability that the wrench produced by machine 2 is defective.

Q4. Summarize the importance of data preprocessing in machine learning. Elaborate Kolmogorov-Smirnov Test for similarity of two distributions.

Q5. Demonstrate the use of support vector regression with the help of suitable example.

Q6. Explain the use of confusion matrix for any machine learning model.

Q7. Compare classification with regression.

Q8. Describe K-means clustering with the help of a diagram.

Q9. Elaborate the concept of single layer perceptron and multiple layer perceptron in neural networks.

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