Roll No……..….. **Total No. of Printed Pages: 1**

Total No. of Questions: [09]

BCA-MCA Dual Degree (Semester – 8th)
MACHINE LEARNING
Subject Code: BMCAS1-802
Paper ID: 18340134

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(2 marks each)**

Q1. Attempt the following:

a What is Machine learning? What is its need?
b State Bayes theorem
c Differentiate between bagging and boosting.
d What do you mean by the curse of dimensionality?
e Explain Ranking.
f What is time series data?
g What is the difference between classification and regression?
h How machine learning is helpful in IOT applications?
i What is deep learning?
j What is Cross validation?

Section – B **(5 marks each)**

Q2. What is a decision tree & discuss the use of a decision tree for classification purposes with an example.

Q3. List the applications of clustering and identify advantages and disadvantages of clustering algorithm.

Q4. Explain the concept of Bagging with its uses?

Q5. Discuss scalable Machine learning with distributed & online?

Q6. Give a detailed note on Classification methods for IOT with a neat sketch?

Section – C **(10 marks each)**

Q7. Give a detailed note on kernel methods?

Q8. Define Model Selection & Discuss in detail?

Q9. Explain the various models for IOT applications.