## JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT TEST -3 EXAMINATION- 2023

## B.Tech-I Semester (ECE)

COURSE CODE (CREDITS): 20B1WEC532 (3)

MAX. MARKS: 35

COURSE NAME: Introduction to Machine Learning

COURSE INSTRUCTORS: Lt. Pragya Gupta MAX. TIME: 2 Hours

Note: (a) All questions are compulsory.

- (b) Marks are indicated against each question in square brackets.
- (c) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems
- Q1. What are the basic data types in machine learning? Give an example of each one of them. [3] (CO 1)
- Q2. Give the difference between the following with example-

[4] (CO1)

- i. Frequentist Interpretation and Bayesian Interpretation
- ii. Deterministic and non-deterministic experiment
- Q3. What is Bayes Theorem. Explain each term of Baye's theorem with example.

[2] (CO 3)

Q4. Explain Decision tree algorithm. Write the strength and weakness of decision tree method. [7] (CO3)

| Point           | Coordinate<br>s | Class<br>Label |
|-----------------|-----------------|----------------|
| <sup>©</sup> A1 | (2,10)          | C2             |
| A2              | (2, 6)          | C1             |
| A3              | (11,11)         | C3             |
| A4              | (6, 9)          | C2             |
| <b>A</b> 5      | (6, 5)          | C1             |
| A6              | (1, 2)          | C1             |
| A7              | (5, 10)         | C2             |
| A8              | (4, 9)          | Ç2             |
| A9              | (10, 12)        | C3             |
| A10             | (7, 5)          | C1             |
| A11             | (9, 11)         | C3             |
| A12             | (4, 6)          | C1             |
| A13             | (3, 10)         | C2             |
| A15             | (3, 8)          | C2             |
| A15             | (6, 11)         | C2             |

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