PRESIDENCY UNIVERSITY
BENGALURU

SCHOOL OF COMMERCE
MID TERM EXAMINATION - NOV 2023

Semester : Semester V - 2021
Course Code : BCH3005
Course Name : Sem V - BCH3005 - Data Transformation using AI analytics
Program : BCH

Date : 3-NOV-2023
Time : 2:00PM - 3:30PM
Max Marks : 50
Weightage : 25%

Instructions:
(i) Read all questions carefully and answer accordingly.
(ii) Question paper consists of 3 parts.
(iii) Scientific and non-programmable calculator are permitted.
(iv) Do not write any information on the question paper other than Roll Number.

PART A

ANSWER ALL THE QUESTIONS   **(5 X 2 = 10M)**

1. Mention two common types of machine learning and briefly explain the difference between them.

                                                            (CO1) [Knowledge]

2. Explain briefly how Machine Learning is impacting the Marketing department in organizations.

                                                            (CO1) [Knowledge]

3. List the key steps involved in data preprocessing within the typical AI and ML process?

                                                            (CO1) [Knowledge]

4. How can regression analysis be applied to sales forecasting in the context of a retail business? Describe it.

                                                            (CO2) [Knowledge]

5. List the splitting criteria for CART and CHAID decision tree algorithms.

                                                            (CO2) [Knowledge]

PART B

ANSWER ALL THE QUESTIONS   **(2 X 10 = 20M)**

6. What are the essential steps and resources for someone looking to get started in the field of artificial intelligence (AI)? Discuss key concepts, programming languages, and foundational knowledge areas that are crucial for beginners.

                                                            (CO1) [Comprehension]

7. Discuss the concept of odds, log-odds, and the sigmoid (logistic) function in the context of logistic regression. How do these components relate to the modeling of probabilities in logistic regression?

                                                            (CO2) [Comprehension]

ANSWER THE FOLLOWING QUESTION **(1 X 20 = 20M)**

8. Outline the principles, advantages and disadvantages of decision tree. Illustrate with a suitable example

(CO2) [Application]