Registration Number:
Date & session:

ST. JOSEPH'S UNIVERSITY, BENGALURU -27
MSc (BIG DATA ANALYTICS) – III SEMESTER
SEMESTER EXAMINATION: OCTOBER 2023
(Examination Conducted in November/December 2023)

BDA 3321 – MACHINE LEARNING II
(For current batch students only)

Time: 2 Hours **Max Marks: 50**

This paper contains TWO printed pages and THREE parts

PART A

Answer All the Questions **5 X 2 =10**

1. Define perceptron.
2. Explain about leaky relu.
3. Write down the types of tokenizers in word embedding.
4. Define stemming in text processing.
5. Define Bayesian Networks.

PART B

Answer any FIVE questions **5 X 4 =20**

6. Discuss about the types of pattern recognition techniques and its importance.
7. Differentiate batch learning and stochastic learning.
8. Calculate fitness value using genetic algorithm for the function $f(x)= x^2$ with x in interval [0,31].
9. Write down the steps to create word2vec.
10. Explain stochastic process in markov model.
11. Differentiate relu and leaky relu.
12. Explain about markov chain.

PART C

Answer Any TWO questions **2 X 10 =20**

13. Maximize the function using genetic algorithm $f(x)=x^3$ with x in interval [0,31].
14. Explain about language modelling and Handling out-of-vocabulary words in markov model.

15 Group the below data into two using k means clustering algorithm.

Income	Spending
40	20
50	15
30	65
20	35
65	35
80	19
40	60