(NO. OF PAGES: 2)

(FOR THE CANDIDATES ADMITTED **22UDA6E4**

DURING THE ACADEMIC YEAR 2022 ONLY) **REG.NO. :**

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : MAY 2025

BSC CS WITH DA-SF **MAXIMUM MARKS: 50**

SEMESTER-VI **TIME : 3 HOURS**

PART – III

22UDA6E4- MACHINE LEARNING ALGORITHMS

SECTION – A (10 X 1 = 10 MARK

ANSWER THE FOLLOWING QUESTIONS. (K1)

1._____, a vector-valued function which associates an input value to a continuous output.

a) generic regressor b) generic classifier c) parametric learning d) parametric regressor

2. _____imposes an additional shrinkage penalty to the ordinary least squares loss function to limit its squared L2 norm

a) Polynominal Regression b) Ridge regression c) Linear regression d) Robust regression

3. Scikit-learn implements ____ Navies Bayes variants based on the same number of different probabilistic distributions.

a) 2 b) 3 c) 4 d) 1

4. In_____distance between each sample and each centroid is computed and sample is assigned to cluster where distance is minimum.

a) minimizing the interia b) interactive interia c) reducing interia d) sample interia

5. _____ combines multiple models to improve predictive performance.

a) Machine Learning b) Ensemble Learning c) Deep Learning d) Predictive Learning

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES (K2)

6. Chart out the purpose of the MinMaxScaler and MaxAbsScaler options.

7. Compare linearly separable and non linearly separable problem.

8. What are the different kinds of misclasiifications:

9. Define Agglomerative clustering.

10. List the steps that is subdivided in common pipeline.

SECTION – B (5 X 3 = 15 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)

11. a) Describe Date formats and Multicast strategies.

(OR)

b) Examine how to create training and test sets.

12. a) Sketch the Polynomial regression in brief.

(OR)

b) Showcase the Logistic regression in brief.

(CONT…2)

Ethical paper

13. a) Construct Naïve Bayes classifiers.

(OR)

b) Illustrate Kernel based classifications.

14. a) Examine Binary decision tree.

(OR)

b) Chart out Hierarchical clustering in brief.

15. a) Interpret Content based system.

(OR)

b) Explain the Sentence Tokenizing and Word Tokenizing.

SECTION – C (5 X 5 = 25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.(K4 (Or) K5)

16. a) Outline the important elements of Machine Learning.

(OR)

b) Examine the Data Scaling and normalization.

17. a) Point out the evaluation metric for Regression model.

(OR)

b) Discuss Classification metrices in logistic regression,

18. a) Develop Naïve Bayes in Scikit learn.

(OR)

b) Evaluate scikit learn implementation.

19 a) Predict Decision tree classification with scikit Learn.

(OR)

b) Summarize the K-means Clustering.

20. a) Investigate Model free collaborative filtering.

(OR)

b) Justify NLTK and built in corpora in detail.

****

Ethical paper