

19U5106

(Pages: 2)

Name:

Reg. No:

FIFTH SEMESTER B.Voc. DEGREE EXAMINATION, NOVEMBER 2021

(Regular/Supplementary/Improvement)

CC18U SDC5 ML20 - MACHINE LEARNING USING PYTHON

(Information Technology)

(2018 Admission onwards)

Time: Three Hours

Maximum: 80 Marks

PART A

Answer *all* questions. Each question carries 1 mark.

1. _____ is a scientific library for Python used for solving mathematical, scientific, engineering, and technical problems.
2. The 'k' stand for in the KNN algorithm is _____
3. In text mining, how the words 'lovely' is converted to 'love' is by _____
4. The value of the logistic regression must be between _____
5. Clustering is a _____ algorithm.
6. _____ approach divides the input dataset into K groups of samples of equal sizes.
7. _____ is a statistical method to model the relationship between a dependent (target) variable and one or more independent(predictor) variables.
8. _____ is the first step of the machine learning life cycle.
9. _____ is the difference between the average prediction of our model and the correct value.
10. _____ is a learning method in which a machine learns without any supervision.

(10 × 1 = 10 Marks)

PART B

Answer any *eight* questions. Each question carries 2 marks.

11. What is Numpy?
12. What are features?
13. What is supervised learning?
14. What are the differences between classification and regression?
15. Define bag-of- word approach.
16. Define independent variable with example.

17. Define scikit-learn.
18. Define logistic regression.
19. What do you understand by L1 and L2 regularization?
20. Define confusion matrix.
21. What is basket analysis?
22. What is Bias-Variance tradeoff?

(8 × 2 = 16 Marks)

PART C

Answer any *six* questions. Each question carries 4 marks.

23. What are the different steps of preprocessing in similarity measurement?
24. Explain Sentiment Analysis.
25. Explain CountVectorizer with example.
26. What is multidimensional regression? Write the python code of multidimensional regression.
27. What is classification problem? Who are the learners in classification problem?
28. What is machine learning? What are the different types of machine learning algorithms?
29. Explain the K-mean algorithm.
30. What is Cross-Validation? Define KFold cross validation technique.
31. Define:

- (i) Bias (ii) Variance (iii) underfitting (iv) Overfitting

(6 × 4 = 24 Marks)

PART D

Answer any *two* questions. Each question carries 15 marks.

32. What is Market basket analysis? Explain Apriori algorithm with example.
33. What are the different Stages of Building a Model in Machine Learning? Explain with an example
34. Explain the regression. What are the different types of regression?
35. What are the Applications of Machine Learning in Modern Businesses?

(2 × 15 = 30 Marks)
