

Roll No.

Total Pages : 2

BT-5/D-22

45264

MACHINE LERNING WITH USING PYTHON

Paper-PC-CS-AIDS-307-A

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt *five* questions in all, selecting atleast *one* question from each unit. All questions carry equal marks.


UNIT-I

1. (a) What is the list data structure in Python? What are its characteristic features? Write the code in Python to access the list elements using for loop.
(b) What is function? How is it defined in Python? How is the default value passed as parameter to a function in Python? Illustrate.
2. (a) What do you understand by dictionary? Explain the following methods with an example :
(i) pop(), (ii) update(), (iii) clear(), (iv) get().
(b) What is a class? How is it defined in Python? Discuss the use of `__init__()` method using suitable example.

UNIT-II

3. (a) What is the difference between supervised and unsupervised learning? Discuss.
(b) Write a note on significance of numPy in deep learning.

45264/150/KD/993

 [P.T.O.]

4. (a) How are the data files read using pandas? Also illustrate the procedure of feature extraction.
- (b) Write a detailed note on applications of Machine Learning.

UNIT-III

5. (a) What is logistic regression? What is the use of it in learning? Discuss its implementation in Python.
 - (b) What do you understand by decision tree? Write a code in Python illustrating the use of decision tree.
6. (a) What is the K means clustering algorithm? How is the elbow method used to decide the value of K? Explain.
 - (b) What is a recommender system? Explain the methodology of collaborative filtering in recommender system.

UNIT – IV

7. What is IBM systemML? What are its characteristic features? Discuss.
 8. What is Apache Spark? Discuss the use of Scala in machine learning in Spark.
-