MASTER OF LIBRARY AND INFORMATION SCIENCE

(DIGITAL LIBRARY) EXAMINATION, 2024

(2nd Year, 1st Semester)

Big Data Analytics

Course : MLDL-11E

Time : Two Hours Full Marks : 50

The figures in the margin indicate full marks.

Answer ***any five*** questions from the following : 5×10=50

1. What is Machine Learning model? Discuss the various categories of Supervised Machine Learning models. 2+8
2. Discuss the application fields of big data. What do you mean by 'Operational big data' and 'Analytical big data'? 5+5
3. What are the Hadoop Ecosystem Components? Discuss the different modules of Hadoop. 5+5
4. Write the commands of following queries in MongoDB: 5×2
   a) Drop the database "journal".
   b) Create a collection named "articles" under the database "journal".
   c) Insert an item under the collection "articles" (assume five fields).

d) Find the details of an item containing the journal title "Desidoc Journal of Library and Information Technology" in the field "j_title" of "articles" collection.

5. Write the commands of following in Python: 5×2

a) Create a data dictionary "dict_1" that values containing: c1->India, c2->Sri Lanka, c3->Nepal, c4->China, c5->Pakistan.

b) Add an element 7 in the set {1, 2, 3, 4, 5, 6}.

c) Write the command to import numpy as np.

d) How do you store a list named 'my_list' in an array?

e) How do you store a nested list in an array named 'my_list_nested'?

6. Write the commands of following in Python: 5×2

a) Write the command to upload a csv file name 'linear1.csv'.

b) How do you read the 'linear1.csv' file?

c) Write a function to create a new column 'obsese' against the column 'bmi' values containing 1 where 'bmi' is less than 30 and 0 greater than equal 30.

d) How do you import Sklern & import Train - test dataset?

e) How do you create an instance for the Linear Regression Model?

7. Write short notes on ***any two*** of the following : 2×5

a) Confusion matrix

b) Classification report

c) Training data and test data in machine learning model

d) Comparison between Matplotlib and seaborn