

(assume the documents as per your own). (use single command)

- iv) Retrieve all documents having author “Suryakumar Dutta” and title “Introduction to Maching learning models”.
- v) Set the new title “Introduction to JSP and Servlet” of the documents whose earlier title was “Java : overview”.
5. Write the following statements in Python :  $5 \times 2 = 10$
- Declare a variable “my\_list” with number 1 to 7.
  - Append a new number 8 in the “my\_list”.
  - Create an array with the numbers : 10,20,30,40 in the variable “my\_arr”.
  - Display the “my\_list” using series.
  - Import Sklearn & import Train-test dataset.
6. What is Apache Hadoop ? What are main modules of Hadoop ? Discuss the master/slave architecture in HDFS.  $2+3+5=10$
7. Write short notes on any *two* of the following :  $2 \times 5 = 10$
- Supervised learning
  - Clustering and Association Rule learning
  - Hive and Pig
  - Seaborn and Matplotlib in Python.

**MASTER OF LIBRARY AND INFORMATION SCIENCE**  
**(DIGITAL LIBRARY) EXAMINATION, 2023**

(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

- Define the terms “Data Science” and “Big data”. Make a comparative study between “data analysis” and “data analytics”.  $3+7=10$
- What is “Machine learning”? State the difference between machine learning and deep learning. How does machine learning work ?  $2+3+5=10$
- What is “NoSQL” database ? How does it differ from RDBMS ? Discuss the different types of NoSQL ?  $2+3+5=10$
- Write the following commands of MongoDB :  $5 \times 2 = 10$ 
  - Create a database “mldl”.
  - Create a collection “articles”.
  - Insert three documents in the collection “article” with the parameters : title, author, abstract, url, keywords and likes.