

# FACULTY OF INFORMATICS

**M.C.A. (2 Years Course) (CBCS) IV Semester (Backlog) Examination, March/ April 2024**

## Subject: Big Data Analytics

**Time: 3 Hours**

**Max. Marks: 70**

**Note: I. Answer one question from each unit. All questions carry equal marks.**

## II. Missing data, if any, may be suitably assumed.

## **Unit – I**

1. a) Discuss about Big Data Analytics.  
b) Explain about the advantages of Big Data Analytics.

(OR)

2. a) Explain about the features and services of Cloud Computing and list the cloud deployment models.  
b) Elaborate on cloud providers in big data market.

## **Unit - II**

3. a) Briefly explain about Map Reduce.  
b) Illustrate on Hadoop Ecosystem in detail.

(OR)

4. a) Discuss about HDFS Architecture.  
b) Write a short note on Data nodes and Hadoop functions.

## **Unit - III**

5. a) Explain about Map Reduce framework in detail.  
b) Discuss about the techniques to optimize Map Reduce Jobs.  
**(OR)**

6. a) Explore the Big Data Stack with Diagram.  
b) Compare data sources layers and storage layer.

## **Unit – IV**

## **Unit - V**

9. a) Explain about the History and Characteristics of No-SQL.  
b) Write a short note on Schema -Less Databases.

**(OR)**

10. a) Give an example of materialized views.  
b) Explain CAP Theorem with a suitable example.