

**FACULTY OF INFORMATICS**

**MCA V Semester (CBCS) (MAIN & BACKLOG) Examination, February 2022**

**Subject: Big Data Analysis**

**Time: 3 Hours**

**Max. Marks: 70**

**(Missing data, if any, may be suitably assumed)**

**Note: Answer any five question from the following. All questions carry equal marks.**

- 1 (a) Discuss the elements of Big Data.  
(b) Explain about the advantages of Big Data Analytics.
- 2 (a) Discuss about Cloud Deployment Models.  
(b) List the difference between parallel and Distributed Systems.
- 3 Explain about Hadoop Ecosystem in detail.
- 4 (a) Explain about HDFS Architecture.  
(b) Write a short notes on Pig Latin.
- 5 (a) Discuss the working of MapReduce.  
(b) Write role of HBase in Big Data processing.
- 6 (a) Briefly explain about an ingestion layer in Big data architecture.  
(b) Exploring the Big Data Stack with diagram.
- 7 Discuss the following:
  - (a) RDBMS and Big Data
  - (b) Issues with non-relational database.
- 8 (a) Discuss about Polyglot Persistence.  
(b) How to integrate Big Data with traditional Data Warehouse?
- 9 Briefly explain types of NOSQL Data Models.
- 10 (a) Discuss about Materialized View.  
(b) Explain about CAP theorem.