

(FOR THE CANDIDATES ADMITTED

24PCS313

DURING THE ACADEMIC YEAR 2024 ONLY)

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : NOVEMBER 2025

M.Sc. Computer Science (SF)

MAXIMUM MARKS: 75

SEMESTER: III

TIME : 3 HOURS

24PCS313-BIG DATA ANALYTICS

SECTION – A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS. (K1)

MULTIPLE CHOICE QUESTIONS.

- 1) What is the main goal of Big Data Analytics?
 - a) Reducing storage cost
 - b) Speeding up processing
 - c) Deriving insights from data
 - d) Data encryption
- 2) Which component manages the storage in Hadoop?
 - a) TaskTracker
 - b) DataNode
 - c) NameNode
 - d) JobTracker
- 3) Which of the following is a key phase of MapReduce?
 - a) Shuffle
 - b) Archive
 - c) Stream
 - d) Encode
- 4) Which command is used to create a managed table in Hive?
 - a) CREATE HIVE TABLE
 - b) CREATE MANAGED TABLE
 - c) CREATE TABLE
 - d) NEW TABLE
- 5) Which component executes Pig Latin scripts?
 - a) Pig Engine
 - b) Pig Server
 - c) Grunt Shell
 - d) Pig Client

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES (K2)

- 6) Define “Big Data”.
- 7) What is a DataNode in Hadoop?
- 8) Illustrate the function of Hadoop Streaming.
- 9) Relate the any two features of HBase.
- 10) Write a note on Grunt shell.

SECTION – B (5 X 5 = 25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)

- 11) a) Summarize the characteristics of Big Data.
(OR)
b) Examine the different types of Data in Big Data.
- 12) a) Determine the core components of Hadoop.
(OR)
b) Evaluate the benefits and challenges of HDFS.

13) a) Discover the relationship of Input Keys to Output Keys in MapReduce.

(OR)

b) Estimate the MapReduce Job Configuration and submission.

14) a) Recall the salient features of Hive server.

(OR)

b) Outline the steps to adding data into a table from queries in Hive.

15) a) Analyze the basic concept of Pig's data model.

(OR)

b) Describe the steps to writing evaluation and filter functions.

SECTION-C

(5 X 8 = 40 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K4 OR K5)

16) a) Elaborate the information and communication technology in big data.

(OR)

b) Illustrate the stages of big data analytics life cycle with diagram.

17) a) Demonstrate the block sizes and block abstraction in HDFS.

(OR)

b) Assess the file system shell commands for HDFS.

18) a) Review the running a Map Reduce job with the MR1 framework.

(OR)

b) Elucidate the different types of Hadoop cluster modes.

19) a) Formulate the altering, truncating and dropping a table in Hive.

(OR)

b) Express the steps to create a Hive external table stored by HBase.

20) a) Integrate the developing and testing Pig Latin scripts.

(OR)

b) Assume the procedure for writing and loading store function in Pig programming.

Ethical paper