

**SARASWATHI NARAYANAN COLLEGE**  
**(Autonomous Institution Affiliated to Madurai Kamaraj University)**  
**(Reaccredited with Grade 'B' by NAAC)**  
**Madurai – 625 022.**

**B.C.A – Summative Examinations – April 2024**  
**Code: LUBCGE41** **Semester: IV**

**DATA ANALYTICS**

**Duration: 3 Hrs.**

**Max: 75 Marks**

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**SECTION – A**

**5 x 1 = 5**

**Answer ALL questions. Choose the correct answer. (K2 Level)**

- 1 . The communication network in M2M can be used \_\_\_\_\_  
a) Wireless medium                      b) Wired medium  
c) Both                                      d) None
- 2 In which language is Hadoop written?  
a) C++                                      b) Java  
c) Rust                                      d) Python
3. Which of the following phases occur simultaneously?  
a) Shuffle and Sort                      b) Shuffle and Map  
c) Reduce and Sort                      d) All of the above
4. In a Hadoop cluster, if a Data Node fails:  
a) Data will be lost  
b) job Tracker will be notified  
c) Name Node will re-replicate the data block other nodes.  
d) Resource Manager will start the Data node
5. Which scripting language is used by pig?  
a) HiveQl                                      b) Java  
c) Pig Latin                                      d) Python

**II. Fill in the blanks (K1 Level)****5 x 1 = 5**

6. M2M stands for \_\_\_\_\_
7. HDFS stand for \_\_\_\_\_
8. \_\_\_\_\_ can best be described as a programming model used to develop Hadoop-based applications that can process massive amounts of data.
9. A \_\_\_\_\_ is a group of computers that work together to store and process data.
10. \_\_\_\_\_ function is used to read data in pig.

**SECTION – B****5 x 2 = 10****Answer ALL the questions.**

11. Which is called big data? (K2)
12. What are the uses of hadoop streaming? (K2)
13. How does map reduce work? (K3)
14. What is full form of yarn? (K4)
15. What is pig? (K5)

**SECTION – C****5 x 5 = 25****Answer any THREE questions choosing either (a) or (b) in about two pages each.**

16. a) What are the sources of Big Data? Explain. (K1)  
(Or)  
b) List any five big data applications and explain
17. a) Write about block in HDFS. (K2)  
(Or)  
b) How to read data from a Hadoop?

18. a) Discuss about Application master Failure. (K3)  
(Or)  
b) Illustrate about Anatomy of a Map Reduce Job Run.
19. a) Write note on Security. (K4)  
(Or)  
b) Write note on Hadoop Benchmarks.
20. a) Explain filtering data in data processing operators. (K5)  
(Or)  
b) Explain the group statement in HiveQL.

**SECTION – D****3 x 10 = 30****Answer any THREE questions in about four pages each.**

21. Describe about benefits of Big data. (K2)
22. Explain about design of HDFS. (K3)
23. Describe about running locally to test Data. (K2)
24. Discuss about cluster specification. (K4)
25. Explain about Hive Services. (K5)