

**FOR THE CANDIDATES ADMITTED  
DURING THE ACADEMIC YEAR 2019 ONLY)**

**(NO OF PAGES: 2)**

**19UCS6E5**

**REG.NO**

**NGM COLLEGE (AUTONOMOUS) POLLACHI**

**END-OF-SEMESTER EXAMINATIONS: JULY- 2022**

**B. Sc – COMPUTER SCIENCE (SF)**

**MAXIMUM MARKS: 75**

**VI SEMESTER**

**TIME: 3 HOURS**

**PART-III**

**BIG DATA ANALYTICS**

**SECTION – A**

**(10 X1 = 10 MARKS)**

**ANSWER THE FOLLOWING QUESTIONS**

**MULTIPLE CHOICE QUESTIONS**

**(K1)**

- Hadoop runs on the\_\_\_\_\_
  - Based on which functional programming language construct for Spark optimizer
  - MongoDB has been adopted as \_\_\_\_\_ software by a number of major websites and services.
  - \_\_\_\_\_ command disables drops and recreates a table.
  - Data in \_\_\_\_ bytes size is called big data
- (a) Debian                      (b) Unix-like                      (c) Bare Metal                      (d) Cross-platform
- (a) Python                      (b) R                      (c) Java                      (d) Scala
- (a) Frontend                      (b) Backend                      (c) Proprietary                      (d) Copyrighted
- (a) Delete                      (b) Drop                      (c) Truncate                      (d) Remove
- (a) Meta                      (b) Giga                      (c) Tera                      (d) Peta

**ANSWER THE FOLLOWING IN ONE OR TWO SENTENCES**

**(K2)**

- Define Big data.
- Comment on SPARK?
- What does HDFS stand for?
- What is an extension of R files?
- Apache Kafka is an open-source platform that was created by whom?

**(CONTD.... 2)**

**SECTION – B****(5 X 5 = 25 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)**

11. a) Explain the Evolution of Big Data and their characteristics.  
(OR)  
b) Illustrate the Hadoop core components with neat diagram.
12. a) Discuss the Hadoop system and ecosystem components in four layers.  
(OR)  
b) Differentiate between SCALA vs Java
13. a) Discuss the NoSQL data stores and their characteristic features.  
(OR)  
b) What is the difference between PIG and SQL?
14. a) Illustrate main features and Architecture of Rhadoop with neat diagram.  
(OR)  
b) Explain in detail SAS program Components.
15. a) Discuss the Importance of Big Data to Business in detail.  
(OR)  
b) How to add new dimensions to the planning cycle? Justify.

**SECTION - C****(4 X 10 = 40 MARKS)****ANSWER ANY FOUR OUT OF SIX QUESTIONS.****(16TH QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS FROM Q.NO: 17 TO 21 )****(K4) OR (K5)**

16. Discuss the significance of big data in various industrial applications.
17. Explain how map reduce jobs run on YARN.
18. Discuss the Apache sqoop import and export methods with neat diagram.
19. Briefly discuss in detail HBASE Architecture and its components.
20. Explain the complete package of big data analytics tools in detail.
21. Discuss how E-Commerce is using big data to improve business in detail.