



**ST. JOSEPH'S COLLEGE (AUTONOMOUS), BANGALORE**  
**III SEMESTER EXAMINATION, OCTOBER 2019**  
**M.SC IN BIG DATA ANALYTICS**  
**BDA 3218: ENABLING TECHNOLOGIES FOR DATA SCIENCE**

**Register No:**

**Date:**

**TIME 2 ½ HRS**

**MAX MARKS 70**

**This Question Paper Contains Two Parts**

**PART I**

**Answer Any Six Questions**

(6\*5=30)

- 1) What are the exception handling operators in Pig script?
- 2) Mention the date data type in Hive. Name the Hive data type collection
- 3) What is zookeeper? how does it work?
- 4) What is the difference between HDFS block and Input Split?
- 5) How to improve HIVE query performance?
- 6) Write all steps of dynamic partition table creation?
- 7) State the usage of 'filters', 'group', 'order by', 'distinct' keywords in pig scripts.
- 8) Write syntax for incremental updates using Sqoop?
- 9) What is the difference between gen1 (1.x) and gen2 (2.x) Hadoop with regards to the name node?

**PART II**

**Answer Any Four Questions**

(4\*10=40)

- 1) With a neat diagram explain the complete architecture of HIVE and explain each component in detail?
- 2) Explain the complete map reduce life cycle with example?
- 3) What are the different phases of Map Reduce program and explain it with Word Count?
- 4) What are the components of YARN? Explain each component functionality with neat diagram?
- 5) Draw 2.x Hadoop architecture and explain the read and write operation of it?