

M.Sc.(IT & CA) Semester - 2 (CBCS) Examination
March/April – 2024 (As Per Syllabus Year-2018)
INTRODUCTION TO BIG DATA AND HADOOP(CORE)

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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- Que.1(A) **Answer the following questions.** (03)
- 1) What is HDFS?
 - 2) What is data node?
 - 3) What is NoSQL?
- Que.1(B) **Answer the following questions (ANY TWO)** (06)
- 1) Explain structured, semi structured and unstructured data?
 - 2) Explain name node and secondary name node.
 - 3) Explain Advanced HDFS features.
- Que.1(C) **Answer the following questions (ANY ONE)** (05)
- 1) Explain Hadoop Ecosystem.
 - 2) Explain HDFS write process.
- Que.2(A) **Answer the following questions** (03)
- 1) What is YARN?
 - 2) What is Tuple in pig?
 - 3) What is BSP?
- Que.2(B) **Answer the following questions (ANY TWO)** (06)
- 1) Explain DUMP and SPLIT in Pig Latin language constructs.
 - 2) Explain Schedulers using suitable example.
 - 3) Explain LOAD in pig.
- Que.2(C) **Answer the following questions (ANY ONE)** (05)
- 1) Explain MapReduce architecture.
 - 2) What is Hadoop Data Types? Explain it.
- Que.3(A) **Answer the following questions** (03)
- 1) Default mode of Hadoop is ____.
 - 2) HQL stands for?
 - 3) Hadoop can be installed and run in ____ modes.
- Que.3(B) **Answer the following questions (ANY TWO)** (06)
- 1) Explain Different ways of joining data.
 - 2) Explain user define function in HIVE.
 - 3) Explain partitions in hive.

- Que.3(C) **Answer the following questions (ANY ONE)** (05)
- 1) Write MR Algorithm for Graph.
 - 2) What is HIVE? Explain Hive architecture.
- Que.4(A) **Answer the following questions** (03)
- 1) HBase stores data in _____ form.
 - 2) What is Bidirectional?
 - 3) What is HBase coprocessor?
- Que.4(B) **Answer the following questions (ANY TWO)** (06)
- 1) What is master server and region in Hbase?
 - 2) Explain HBase Architecture.
 - 3) Explain Bulk loading data in HBase.
- Que.4(C) **Answer the following questions (ANY ONE)** (05)
- 1) Explain Filters with Example.
 - 2) Explain Command Line Interface in HBase
- Que.5(A) **Answer the following questions** (03)
- 1) What is EC2?
 - 2) What is RDD?
 - 3) What is EMR?
- Que.5(B) **Answer the following questions (ANY TWO)** (06)
- 1) Explain Spark Architecture.
 - 2) Explain configuration of Spark.
 - 3) Explain Graph Database in detail.
- Que.5(C) **Answer the following questions (ANY ONE)** (05)
- 1) Explain Different modes of Hadoop cluster.
 - 2) Explain import export process across RDBMS and HDFS.
