

M.Sc.(IT & CA) Semester - 2 (CBCS) Examination**March/April– 2019 (New Course)****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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- Q-1 (A) Attempt the Following. (03)
- (1) Founder of Linux is _____
 - (2) By default block size in HDFS is _____.
 - (3) HDFS stands for.
- (B) Give the following answer (Any Two) (06)
- (1) What is Structured, semi structured and Unstructured Data?
 - (2) Explain CAP Theorem in detail.
 - (3) Differences between schema on Read vs. Schema on Write.
- (C) Give the following answer (Any one) (05)
- (1) Write a short note on HDFS Data Flows.
 - (2) Explain 3V in detail.
- Q-2 (A) Attempt the Following. (03)
- (1) BSP stands for.
 - (2) YARN stands for.
 - (3) In PIG, to print the value of variable _____ command is used.
- (B) Give the following answer (Any Two) (06)
- (1) Explain different modes of executing Pig constructs.
 - (2) Give a detail on MRv1 vs MRv2.
 - (3) Difference between Hash Partitioner vs. Customer Partitioner.
- (C) Give the following answer (Any one) (05)
- (1) What is MapReduce? Explain with MapReduce Architecture.
 - (2) Explain User Define Function in PIG.
- Q-3 (A) Attempt the Following. (03)
- (1) DDL Stands for?
 - (2) Hive is best suited for? (OLAP?OLTP)
 - (3) In Pseudo distributed mode Name node and Data Node are not available. (true or false)
- (B) Give the following answer (Any Two) (06)
- (1) What is optimization Techniques in MR?
 - (2) Write a short note on different ways of joining data.
 - (3) Explain partitions in detail.

- (C) Give the following answer (Any one) (05)
- (1) Write MR Algorithm for Graph.
 - (2) What is HIVE? Explain Hive architecture.
- Q-4 (A) Give the following answers. (03)
- (1) Give the two tables' name of Catalog tables in HBase.
 - (2) DML stands for.
 - (3) What is Bidirectional?
- (B) Give the following answer (Any Two) (06)
- (1) Explain Bulk loading data in HBase.
 - (2) What is master server and region in Hbase?
 - (3) How to Create a table in Hbase using Java API.
- (C) Give the following answer (Any one) (05)
- (1) Explain HBase Architecture.
 - (2) Explain five Filters with Example.
- Q-5 (A) Give the following answers. (03)
- (1) EMR Stands for.
 - (2) Rdd stands for.
 - (3) EC2 stands for.
- (B) Give the following answer (Any Two) (06)
- (1) Explain Read & Write Process in HDFS.
 - (2) Explain Oozie work flow in detail.
 - (3) Explain Spark Architecture in detail.
- (C) Give the following answer (Any one) (05)
- (1) Explain Different modes of hadoop cluster.
 - (2) Explain import export process across RDBMS and HDFS with example.
