(Following Paper ID and Roll No. to be filled in your Answer Books)

Paper ID: 113667

Roll No.

B.TECH.

Theory Examination (Semester-VI) 2015-16

BIG DATA

Time: 3 Hours

Max. Marks: 100

Section-A

- 1. Attempt all parts. All parts carry equal marks. Write answer of each part in short. $(2 \times 10 = 20)$
 - (a) How you can define the term big data?
 - (b) What comes under big data?
 - (c) Explain the major challenges of big data.
 - (d) What are the different types of big data technologies?
 - (e) Explain the difference between operational and analytical system.

- (f) What is Hadoop architecture?
- (g) How does Hadoop work? Explain the advantages of Hadoop.
- (h) Explain Hadoop distributed file system.
- (i) What do you mean by Hadoop operation modes?
- (j) Explain the concept of multinode cluster for distributed environment.

Section-B

2. Attempt any five parts. All parts carry equal marks:

 $(10 \times 5 = 50)$

- (a) Write the working procedure of HDFS and also explain the features of HDFS.
- (b) What is Map Reduce? Explain the stages of Map Reduce program execution.
- (c) Explain big data and algorithmic trading.
- (d) Discuss crowd SOURCING analytics and inter, trans firewall analytics.

- (e) Explain big data and Hadoop open source technology.
- (f) Write the data models relationship and databases types.
- (g) Explain the aggregate data models with an example.
- (h) Write a brief note on composing map-reduce calculation.

Section-C

Note : Attempt any two questions from this section. $(15 \times 2 = 30)$

- 3. (a) Explain H base and their data model and implementations,
 - (b) Cassandra data model with an example.
- 4. Explain in detail about the Hive data manipulation, queries, data definition and data types.
- 5. Elaborate on graph Mapping schemas. What do you mean by lower bounds replication rate ?

