



## P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belgaum)

**Seventh Semester, B.E. - Information Science and Engineering**

**Make-up Examination; Jan / Feb - 2017**

### Big Data

*Time: 3 hrs*

*Max. Marks: 100*

*Note: Answer FIVE full questions, selecting ONE full question from each unit.*

#### UNIT - I

- 1 a. Classify all the three types of Big data of any organization's website. Justify your classification. 10
- b. In traditional RDBMS system or Data warehousing what are the types of data analyzed? Now Big data represents a fundamental shift in business decision making. List the external data or new data formats considered for Big data analysis. 10
- 2 a. Describe the impact of Big data on Industries. 10
- b. Apply Big data analysis framework to any application and identify potential data sources used in the framework. 10

#### UNIT - II

- 3 a. What is the data aggregation? List different data models used in NOSQL and explain. 10
- b. Polyglot persistent is mandatory in Big data Analytics. Justify the claim. 10
- 4 a. Explain different data distribution models. 10
- b. Compare CAP theorem and ACID transaction. 10

#### UNIT - III

- 5 a. Differentiate Hadoop streaming and Hadoop pipes. 10
- b. How Hadoop Analyzes data with Map and Reduce? Give example. 10
- 6 a. Justify the need for secondary name node in HDFS system. What is the design consideration in this scenario? 10
- b. With a diagram, explain the sequence of events that takes place when reading a file between the client and HDFS. 10

#### UNIT - IV

- 7 a. List the different failure need to be considered for Map Reduce programs running on YARN. 10
- b. Bring out the anatomy of Map Reduce job Run. 10
- 8 a. Explain shuffle and sort-task execution with example. 10
- b. List the different job schedulers available in later version of Hadoop. Compare its merits with first version of Hadoop. 10

#### UNIT - V

- 9 a. Explain HBase data model. 10
- b. Explain Carsandra data model. 10
- 10 a. Explain Pig latin scripts with example. 10
- b. Explain Hive QL data manipulation and Hive QL queries. 10