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

(An Autonomous Institution affiliated to VTU, Belgaum)

**Second Semester, M. Tech - Computer Engineering (MCEN)**

**Semester End Examination; June - 2016**

**Managing Big Data**

*Time: 3 hrs*

*Max. Marks: 100*

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

### UNIT - I

- |      |  |    |
|------|--|----|
| 1 a. | Explain big data give any one industry example of big data.                      | 10 |
|      | b. Explain the importance of big data. Also compare with RDBMS.                  | 10 |
| 2 a. | Write a note on :  | 10 |
|      | (i) Unstructured data      (ii) Grid computing.                                  | 10 |
|      | b. Briefly explain inter and trons firewall analytics and also risk in big data. | 10 |

### UNIT - II

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|------|--|----|
| 3 a. | Explain in brief NOSQL and graph databases.                  | 10 |
|      | b. With examples explain aggregate data model.               | 10 |
| 4 a. | Explain in brief ;   | 10 |
|      | (i) Schema less database      (ii) Sharding                  | 10 |
|      | b. With an example explain two-stage Map-Reduce calculation. | 10 |

### UNIT - III

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|------|---|----|
| 5 a. | Discuss in detail design of HDFS.               | 10 |
|      | b. Explain in detail java interface for Hadoop. | 10 |
| 6 a. | Explain the following with respect to Hadoop,   |    |
|      | i) Map file                                     | 10 |
|      | ii) Compression.                                |    |
|      | b. Discuss in brief Hadoop streaming and pipes. | 10 |

### UNIT - IV

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|------|--|----|
| 7 a. | What is YARN? Discuss in brief the scheduling in YARN. | 10 |
|      | b. Explain shuffle and sort in Map Reduce.             | 10 |
| 8 a. | Explain in brief Map Reduce Input and output formats.  | 10 |
|      | b. Explain in detail how Hadoop runs Mop Reduce job.   | 10 |

### UNIT - V

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|-------|---|----|
| 9 a.  | What is Pig? Give Pig data model in detail.                       | 10 |
|       | b. Explain in brief data types and file formats of Hive.          | 10 |
| 10 a. | With suitable examples explain HIVEQC Queries.                    | 10 |
|       | b. What is Hbase? Explain in brief data mode and implementations. | 10 |

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