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P.E.S. College of Engineering, Mandya - 571 401
(An Autonomous Institution affiliated to VTU, Belagavi)
Second Semester, M.Tech - Computer Engineering (MCEN)
Semester End Examination; May/June - 2018
Managing Big Data

Time: 3 hrs

Max. Marks: 100

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

UNIT - I

1. Discuss the 4 v's of big data with suitable examples for each. 10
- b. Describe the scenario in which we can present fraud using big data analytics with suitable use cases. 10
- 2 a. Briefly Explain the HDFS architecture with a suitable sketch also list its major features. 10
- b. Discuss the complete execution sequence of map reduce with a suitable example. 10

UNIT - II

- 3 a. Design a map reduce program in java to count the numbers of words given in the following text file :-

Hadoop
Hive
Rackspace
AWS

└─> mytext.txt

- b. Discuss the technique to optimize map reduce jobs. 10
- 4 a. Discuss the major issues that needs to be considered while designing a file system in map reduce. 10
- b. Briefly explain the various characteristics of HBase and its relevance in Big data processing. 10

UNIT - III

- 5 a. Discuss the various benefits and challenges of NOSQL. 10
- b. Explain any 2 NOSQL data models with suitable examples. 10
- 6 a. Differentiate between ACID and BASE properties and state the CAP theorem with a suitable sketch. 10
- b. Discuss the various distributions models with suitable examples. 10

UNIT - IV

- 7 a. Explain in detail the analytic process. 10
- b. Discuss the role of the IT and analytics team in big data analytics projects . 10
- 8 a. Differentiate between reporting and analysis with suitable examples for each 10
- b. Briefly explain the characteristics of big data analysis with suitable examples 10

UNIT - V

- 9 a. Explain in details the various techniques used for visual data representation with suitable sketches. 10
- b. List and explain the various applications of data visualization. 10
- 10 a. Briefly discuss the analytical techniques used in big data visualization . 10
- b. Discuss with suitable use-case the use of big data in detecting fraudulent activities in the insurance sector. 10

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