Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_

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**End Semester Examination – Nov/Dec – 2018**

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| **Code :** | **17CS3078** | **Duration :** | **3hrs** |
| **Sub. Name :** | **BIG DATA PLATFORMS** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | Describe the different types of digital data with suitable examples. List few examples of machine generated and human generated data. | CO1 | 10 |
| b. | Discuss the challenges faced with big data. | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | Describe the typical datawarehouse environment and Hadoop environment. | CO4 | 10 |
| b. | Explain the three V’s of Big Data and also list down various sources of big data | CO1 | 10 |
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| 3. | a. | Classify the different types of NoSQL Databases and explain them with suitable examples. | CO3 | 10 |
| b. | Compare and contrast SQL, NoSQL, and NewSQL and list the advantages of NoSQL. | CO2 | 10 |
| (OR) | | | | |
| 4. | a. | Explain the CAP theorem with appropriate examples. | CO4 | 8 |
| b. | Describe the features of Hadoop and list down the key advantages. | CO4 | 12 |
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| 5. | a. | Describe the replication and sharding process in MogoDB. | CO5 | 10 |
| b. | Explain the CRUD operations in MongoDB using suitable examples. | CO5 | 10 |
| (OR) | | | | |
| 6. | a. | Describe a JSON document. Explain how to create a JSON document in MongoDB. | CO5 | 10 |
|  | b. | Explain the Aggregate functions in MongoDB. | CO5 | 10 |
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| 7. | a. | Describe the Hbase architecture with a neat diagram. | CO5 | 10 |
| b. | Compare and contrast relational database management system and hadoop system. | CO5 | 10 |
| (OR) | | | | |
| 8. | a. | Explain the features of Cassandra and discuss about writes in Cassandra. | CO5 | 14 |
| b. | Discuss about the CQL datatypes. | CO5 | 6 |
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|  | | **Compulsory**: |  |  |
| 9. |  | Explain the Hadoop Ecosystem and distributed processing using Map Reduce in detail. | CO6 | 20 |