DHARMSINH DESAI UNIVERSITY, NADIAD

FACULTY OF TECHNOLOGY

B.TECH. SEMESTER VII [CE]

SUBJECT: (CE720) BIG DATA ANALYTICS

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| **Examination** | | **: Block Sessional** | **Seat No** | **: \_\_\_\_\_\_\_\_\_\_\_\_\_\_** | |
| **Date** | | **: 19/10/2019** | **Day** | **: Saturday** | |
| **Time** | | **: 11:00 to 12:15** | **Max. Marks** | **: 36** | |
| **INSTRUCTIONS:** | | | | |  |
| 1. | Figures to the right indicate maximum marks for that question. | | | |  |
| 2. | The symbols used carry their usual meanings. | | | |  |
| 3. | Assume suitable data, if required & mention them clearly. | | | |  |
| 4. | Draw neat sketches wherever necessary. | | | |  |

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| **Q.1** | **Do as directed.** | | |
| (a) | Explain two replication strategies of Cassandra. | **[2]** |
| (b) | Explain in brief HDFS data blocks. | **[2]** |
| (c) | Explain in brief two types of big data analytics. | **[2]** |
| (d) | Justify: Data Scientist is your new best friend! | **[2]** |
| (e) | Mention features of JasperReports. | **[2]** |
| (f) | What is data locality? How does Hadoop ensure data locality? | **[2]** |
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| **Q.2** |  | |  |
| (a) | Write a map-reduce solution to below problem statement: Sorting of employee records based on name.  Assume that the input file employee.csv conatins id, name, age. No need to provide main function. | **[4]** |
| (b) | Consider a table “Students” with the following columns:  + StudRollNo, StudName, Grade, Hobbies, DateOfJoining.  Provide insert, update, delete and select RDBMS equivalent example statement with respect to MongoDB. | **[4]** |
| (c) | Compare and contrast: Hive - Pig | **[4]** |
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| **Q.3** |  |  |  |
|  | (a) | Explain mapreduce job execution flow. | **[6]** |
|  | (b) | Explain tunable consistency feature of Cassandra in detail. Also write read and write consistency levels. | **[6]** |
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