DHARMSINH DESAI UNIVERSITY, NADIAD

FACULTY OF TECHNOLOGY

M.TECH. SEMESTER - II (CE)

SUBJECT: [MT219] BIG DATA ANALYTICS

| **Examination** | **: Remedial I (Sessional)** | **Seat No.** | **: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| --- | --- | --- | --- |
| **Date** | **: 23/08/2022** | **Day** | **Tuesday** |
| **Time** | **: 11:30 a.m. to 12:45 p.m.** | **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. |

| **Q.1** | **Answer the following:** | | **[12]** |
| --- | --- | --- | --- |
| **(A)** | Fill in the blank below to give statement a proper meaning:  (I) CAP stands for \_\_\_\_\_\_\_\_\_\_. | **[2]** |
|  | (II) BASE stands for \_\_\_\_\_\_\_\_\_\_. |  |
| **(B)** | State true or false with justification:  (I) Horizontal scaling is achieved via hadoop cluster. | **[2]** |
|  | (II) MongoDB is a document oriented database. |  |
| **(C)** | What are the characteristics of Big Data? | **[2]** |
| **(D)** | Explain the concept of schema or read vs schema on write. | **[2]** |
| **(E)** | What is Data Science? Diagrammatically justify that Data Science is multi-  disciplinary. | **[2]** |
| **(F)** | Discuss about data outliers. | **[2]** |
|  |  | |  |
| **Q.2** | **Answer the following:** | | **[12]** |
| **(A)** | Provide a few mongoDB operations to perform crud and data analytics. | **[4]** |
| **(B)** | Provide high-level hadoop installation steps. | **[4]** |
| **(C)** | Describe the usage of decision tree in big data analytics. | **[4]** |
|  | | |  |
| **Q.3** | **Answer the following:** | | **[12]** |
| **(A)** | Draw hadoop ecosystem with related components. | **[4]** |
| **(B)** | What is OLAP? Explain the data cube and its operations conceptually. | **[4]** |
|  | **(C)** | Support map-reduce framework working using a word count program with documenting comments. | **[4]** |

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