

M.C.A. - II (2 Years) New CBCS Pattern Semester-III  
**PMCAT303 - Paper-III : Big Data & Hadoop**

P. Pages : 2

Time : Three Hours



**GUG/W/23/13649**

Max. Marks : 80

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- Notes : 1. All questions are compulsory and carry equal marks.  
2. Draw neat and labelled diagrams wherever necessary.  
3. Avoid vague answer and write answers relevant and specific to questions only.

**Either:**

1. a) Explain in detail data serialization. 8  
b) What is MapReduce? Explain with example. 8

**OR**

- c) Explain V's of Big data? 8  
d) Explain details of Hadoop Ecosystem. 8

**Either:**

2. a) Write about SSH & Hadoop configuration. 8  
b) Define MapReduce? Explain the implementation of a MapReduce with suitable example. 8

**OR**

- c) Explain hadoop storage in big data in detail. 8  
d) Explain the anatomy of file read and write in Hadoop. 8

**Either:**

3. a) Explain in detail- 8  
i) Fair scheduler  
ii) Capacity scheduler  
b) Explain monitoring and maintenance in HDFS Administration. 8

**OR**

- c) Explain detail on Hadoop 2.0. 8  
d) What is MRv2 and YARN? Explain in detail. 8

**Either:**

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|-----------|----|--|----------|
| <b>4.</b> | a) | How the schema design is done in HBase? Explain in detail. | <b>8</b> |
|           | b) | What is ZooKeeper and how it help in monitoring a cluster. | <b>8</b> |

**OR**

- |           |    |   |          |
|-----------|----|---|----------|
|           | c) | Write short note on HBASE in detail.                          | <b>8</b> |
|           | d) | Explain in detail about the different types of joins in Hive. | <b>8</b> |
| <b>5.</b> |    | Attempt <b>all</b> the questions.                             |          |
|           | a) | Explain different Applications in Big data.                   | <b>4</b> |
|           | b) | Explain Task trackers in detail.                              | <b>4</b> |
|           | c) | Write short note on HiveQL.                                   | <b>4</b> |
|           | d) | Explain with example on MapReduce script.                     | <b>4</b> |

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