

Total No. of Questions : 8]

SEAT No. :

**PC1809**

[6353]-128

[Total No. of Pages : 2

**T.E. (Information Technology)**

**DATA SCIENCE AND BIG DATA ANALYTICS**

**(2019 Pattern) (Semester - II) (314452)**

**Time : 2½ Hours]**

**[Max. Marks : 70**

**Instructions to the candidates.**

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.

**Q1) a) Explain the working of Google File System with a neat diagram with relevant to Big Data. [9]**

**b) Write Short note on YARN and Map - Reduce technique. Is there any difference between both. [8]**

**OR**

**Q2) a) Explain Hadoop Frame work components with a neat Diagram, which component is used in Big data. [9]**

**b) Write the 4 types of NoSQL databases. How they are used in Big Data. [8]**

**Q3) a) Explain 4 types of big data analytics along with the analytical purpose in each phase. [8]**

**b) Explain different steps in Data Analytics project life cycle, how it is different than normal project life cycle. [9]**

**OR**

**Q4) a) Explain the tasks in Data integration and Data Transformation phase with suitable example. [8]**

**b) Explain the three ways of Data Normalization used in data analytics. [9]**

**P.T.O.**

**Q5)** a) Explain different Data Visualization Techniques. Why visualization is important in Big Data. [8]

b) Explain various types of charts used in data visualization along with its analytical purpose. [10]

OR

**Q6)** a) Explain how data Visualization is beneficial for Business Analytics and Intelligence. [8]

b) Explain Features of Tableau DV tool and state phases of Tableau workflow. [10]

**Q7)** a) What is Social Media Data Analytics and state the advantages of SMA. [9]

b) Explain roles and responsibilities of big data analysts and data scientists. [9]

OR

**Q8)** a) What is Mobile analytics? Explain its importance with suitable example. [9]

b) Explain the data analysis life cycle in big data. [9]

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