

Total No. of Questions : 8]

SEAT No. :

**PC1809**

[Total No. of Pages : 2

**[6353]-128**

**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]

