[5926]-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) *Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8.*
2) *Neat diagrams must be drawn wherever necessary.*
3) *Figures to the right indicate full marks.*
4) *Assume suitable data, if necessary.*

Q1) a) i) Explain Google File system and its advantages. **[5]**

       ii) Explain ETL in Big data. **[5]**

   b) Explain Hadoop distributed file system. **[8]**

OR

Q2) a) i) Write 5 Hadoop Shell commands. **[5]**

       ii) Explain Role Job tracker and Task Tracker in Hadoop Architecture.

                                                     [5]

   b) Explain Map Reduce with proper diagram for word count example. **[8]**

Q3) a) Explain different types of Big Data Analysis techniques. **[8]**

   b) i) Explain Different Data Transformation techniques. **[3]**

       ii) What is dataset? Explain with python syntax of 2 different types of dataset used in Big data. **[6]**

OR

Q4) a) i) Explain Mean, Mode and variance and standard deviation with suitable example. **[8]**

       ii) Explain Data Standardization. **[3]**

   b) Draw and explain Architecture of HIVE. **[6]**

P.T.O.

Q5) a) i) How data visualization help Big data Analytics. **[4]**

         ii) List the conventional Data visualization tools. Explain any Two. **[6]**

     b) Explain data visualization with the help of example? What are the advantages of data visualization? **[8]**

OR

Q6) a) Explain any 4 Types of data visualization with example. **[8]**

     b) i) Explain different data visualization tools. **[6]**

         ii) Explain Data Visualization with Tableau. **[4]**

Q7) a) Explain Text mining with example. **[8]**

     b) Explain Big Data Analytics Challenges in brief. **[9]**

OR

Q8) a) Explain four Big Data use cases. **[8]**

     b) Explain types of Mobile Analytics. **[9]**

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