

Total No. of Questions : 8]

SEAT No. :

PE-2590

[Total No. of Pages : 2

[6583]-121

T.E. (Information Technology)

DATA SCIENCE AND BIG DATA ANALYTICS

(2019 Pattern) (Semester - VI) (314452)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.
- 2) Neat diagrams must be drawn wherever necessary.
- 2) Figures to the right indicate full marks.
- 3) Assume suitable data, if necessary.

Q1) a) i) Draw architecture of Google File system and explain its advantages. [5]

ii) Describe with example the types of classes to handle big data. [5]

b) Draw architecture of Hadoop distributed file system and explain. [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 Read operations in HDFS with suitable diagram. [8]

Q3) a) Explain different types of Big Data Analysis. How it will perform analysis. [8]

b) i) Explain Different Data Transformation techniques with its applications. [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 with suitable example. [6]

ii) Explain Data Standardization and its necessity. [4]

b) Draw and explain Architecture of HIVE. [7]

P.T.O.

- Q5)** a) i) How data visualization help Big data Analytics. Explain [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) List challenges in data visualization with example. [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 with example. [8]
b) Explain types of Mobile Analytics with real time example. [9]

