

Total No. of Questions : 10]

SEAT No. :

P3975

[5561]-679

[Total No. of Pages : 2

B.E.(Computer Engineering)

DATA ANALYTICS

(2015 Pattern) (Semester - I) (410243)

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, Q.9 or Q.10.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Assume suitable data if necessary.*

Q1) a) What is big data? Explain 3V's of Big Data. **[5]**

b) Draw Data Analytics Lifecycle & give brief description about all phases. **[5]**

OR

Q2) a) Write a case study on Global Innovation Network & Analysis (GINA). **[5]**

b) Explain Null Hypothesis & Alternative Hypothesis. **[5]**

Q3) a) How Wilcoxon Rank-Sum Test works? **[5]**

b) Explain Type 1 and Type 2 errors. **[5]**

OR

Q4) a) Write an Apriori Algorithm. **[5]**

b) Define following terms with example : Confidence and Lift. **[5]**

Q5) a) Explain following Decision Tree Algorithms : **[9]**

i) ID3 Algorithm

ii) C4.5

iii) CART

b) How Naive Baye's classification works? Give its applications. **[8]**

OR

P.T.O.

- Q6) a)** Explain following terms : [9]
- i) Bagging
 - ii) Boosting
 - iii) Random forest
- b)** What is data visualization? Describe any four data visualization techniques. [8]
- Q7) a)** Why is it difficult to visualize Big Data? Also explain analytical techniques used in Big Data Visualization. [9]
- b)** Explain various tools to visualize Big Data. (Any four) [8]
- OR
- Q8) a)** What is Map-Reduce? Explain working of Map-Reduce with example. [9]
- b)** Explain HDFS with respect to NameNode, DataNodes, Secondary NameNode with example. [8]
- Q9) a)** Explain following terms : [8]
- i) Smoothing
 - ii) Confusion matrix
- b)** Explain Data Visualization Tool - Tableau. [8]
- OR
- Q10) a)** Explain following terms : [8]
- i) Key-value store
 - ii) Document store
 - iii) Column family store
 - iv) Graph Databases
- b)** Why communication is important in data analytics lifecycle projects? [8]

