



- Notes :
1. All questions carry marks as indicated.
 2. Solve Question 1 OR Questions No. 2.
 3. Solve Question 3 OR Questions No. 4.
 4. Solve Question 5 OR Questions No. 6.
 5. Solve Question 7 OR Questions No. 8.
 6. Solve Question 9 OR Questions No. 10.
 7. Solve Question 11 OR Questions No. 12.
 8. Due credit will be given to neatness and adequate dimensions.
 9. Assume suitable data whenever necessary.

1. a) Define Big Data. Explain the characteristics of big data. 7
b) Explain data analytics life cycle with proper diagram. 6
- OR**
2. a) Discuss data analytics problem in details. 6
b) Explain the different modes of Hadoop. 7
3. a) What are the different ways to write MapReduce in R. 7
b) Write short note on the Hadoop MapReduce. 6
- OR**
4. a) Discuss the concept Hadoop MapReduce fundamental in details. 7
b) Write short note on RHIPE architecture. 6
5. a) Discuss data analytics project life cycle in details. 7
b) Explain data analytics problem for web page categorization. 7
- OR**
6. Explain the concept of supervised and unsupervised Machine-learning algorithms in details. 14
7. a) What is business intelligence? Explain business application of BI. 7
b) Write short note on Business analytics in Business Intelligence. 6
- OR**
8. a) Explain Business Intelligence framework in details. 7
b) Explain the concept of Business intelligence value chain. 6
9. a) Explain the concept of data integration with it's need. 7
b) Discuss common data integration approaches in details. 7
- OR**
10. a) Explain the concept of Multidimensional data model in details with proper diagram. 14
11. a) Explain the process of functional and Non-functional Requirements in details. 13
- OR**
12. a) Discuss Business Intelligence Project Lifecycle. 7
b) Write short note on Business Intelligence Project Deployment Process. 6
