

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Eighth Semester B.Tech Degree Regular Examination June 2023 (2019 Scheme)

Course Code: MET444**Course Name: DATA ANALYTICS FOR ENGINEERS****Max. Marks: 100****Duration: 3 Hours****PART A***Answer all questions, each carries 3 marks.*

Marks

- | | | |
|----|---|-----|
| 1 | Differentiate between descriptive and inferential statistics. | (3) |
| 2 | Distinguish between analysis and reporting. | (3) |
| 3 | Differentiate supervised learning and unsupervised learning. | (3) |
| 4 | Why dimensionality reduction is important in data analytics? | (3) |
| 5 | Define the following measures in association rules: (i) Confidence (ii) Support | (3) |
| 6 | Write a note on hierarchical clustering. | (3) |
| 7 | Explain the characteristics of big data. | (3) |
| 8 | What is data visualization? | (3) |
| 9 | What are the components of Hadoop? | (3) |
| 10 | Discuss the role of social media analytics in market study. | (3) |

PART B*Answer any one full question from each module, each carries 14 marks.***Module I**

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| 11 | a) What is statistical inference? | (4) |
| | b) What is hypothesis testing? Explain the procedure of performing hypothesis testing. | (10) |

OR

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| 12 | What is resampling? Explain different types of resampling techniques in data analytics. | (14) |
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Module II

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| 13 | a) Compare the models of biological neuron and artificial neuron with neat sketches. | (10) |
| | b) Write about the applications of ANN. | (4) |

OR

- 14 What is Dimensionality Reduction? Explain any one method of dimensionality reduction. (14)

Module III

- 15 a) Describe market-based model used in descriptive analysis. (7)
b) Write a note on partitioning method in clustering analysis. (7)

OR

- 16 Cluster the following data sets into two clusters using K-means algorithm (14)
A1(2, 10), A2(2, 5), A3(8, 4), A4(5, 8), A5(7, 5), A6(6, 4)

Module IV

- 17 With the help of a suitable layout, explain the life cycle of big data analytics. (14)

OR

- 18 a) Explain the various applications of big data analytics. (7)
b) List the various challenges of big data analytics. (7)

Module V

- 19 What are the various components of Hadoop? How does HDFS handle big data? (14)

OR

- 20 With the help of a suitable diagram, explain the concept and framework of map reduce. (14)
