



QP CODE: 21002270



Reg No :

Name :

M Sc DEGREE (CSS) EXAMINATION, NOVEMBER 2021

First Semester

M.Sc.Computer Science (Data Analytics)

**CORE - CA030102 - INTRODUCTION TO DATA ANALYTICS AND MACHINE
LEARNING**

2019 ADMISSION ONWARDS

76BBFE8B

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. What do you mean by data, List their types?
2. Summarize the graphical representation of data.
3. what do you mean by machine learning. Explain.
4. Distinguish the learning versus design.
5. Discuss multivariable model representation.
6. What is Cost function .Explain the use.
7. Explain ensemble learning.
8. Explain Random forest.
9. Explain Artificial neural network in detail.
10. what are the difference between Forward propagation and backward propagation.

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. What do you mean by data integration and data Transformation.
12. Explain data source and their types.
13. Explain the terms. a) Bias b)Variance c)Recall d)precision e)Accuracy.
14. Explain Unsupervised Learning in detail.
15. Explain KNN algorithm in detail.





16. Explain SVM in detail.
17. What do you mean by K in K-means clustering. How will you find best number of K, explain with neat diagram.
18. What do you mean by Biological neurons. Explain artificial neural network in detail.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Explain the types of learning in detail.
20. What do you mean by regression. Explain their types in detail.
21. Explain about dimensionality reduction in detail.
22. Write about Neural network, List the applications. Explain the terms a)Single layer neural network b) Multilayer neural network c)cost function. Consider a case "A Neural network has large number of hidden layers" do you think will it gives more accurate results and best performance .Comment it.

(2×5=10 weightage)

