

**TILAK MAHARASHTRA VIDYAPEETH, PUNE**  
**MASTER OF SCIENCE (M.SC) IN COMPUTER APPLICATIONS**  
**EXAMINATION : JUNE - 2022**  
**SEMESTER - III**  
**Sub: Data Analytics (MSC -303 -19)**

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**Date : 13/06/2022**

**Total Marks : 60**

**Time: 10.00 am to 12.30 pm**

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**Instruction:**

1. All questions are compulsory unless and otherwise stated.
  2. Bold figures to the right of every question are the maximum marks for that question.
  3. Candidates are advised to attempt questions in order.
  4. Answers written illegibly are likely to be marked zero.
  5. Use of scientific calculators, Log tables, Mollier Charts is allowed.
  6. Draw neat and labelled diagram wherever necessary.
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**Q. 1. Answer the following in 2-3 lines. (Any 5) (10)**

1. What is Linear Regression Algorithm?
2. Define neural network.
3. What are Different Kernels in SVM?
4. How to Tackle Overfitting and Underfitting?
5. Why python is known as an Interpreted language?
6. What are the applications of deep learning?
7. What is slicing in Python?

**Q. 2. Answer the following in short. (Any 4) (20)**

1. What is Python. Explain features of python in detail.
2. Explain major task of Data preprocessing process.
3. Explain Data Normalisation. What is the need for it?
4. Describe Dictionary and Tuples with Example.
5. Write short note on NumPy Library with its method.
6. Explain the Difference Between Classification and Regression?

**Q. 3. Answer the following in detail. (Any 3) (30)**

1. Explain Naïve bayes Algorithm in Detail
  2. Define Deep learning. Explain Convolutional Neural Networks with help of diagram
  3. What are Different Types of Machine Learning algorithms? Explain in detail.
  4. What is clustering? Explain k-means clustering.
  5. Describe Natural Language Learning in detail.
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