

R20

Code No: R20DS501

**MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY**

(Autonomous Institution – UGC, Govt. of India)

II B.Tech I Semester Regular Examinations, February 2022

Introduction to Data Science

(CSE-DS)

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Time: 3 hours

Max. Marks: 70

Note: This question paper Consists of 5 Sections. Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 14 marks.

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SECTION-I

- 1 What is Python? Explain the following libraries [5M]  
a) Scikit-Learn [5M]  
b) Numpy [4M]  
c) Pandas

OR

- 2 Define Data science. Explain the following data operations [5M]  
a) Reading [5M]  
b) Manipulating [4M]  
c) Plotting

SECTION-II

- 3 Explain the significance of Exploratory data analysis in data science [14M]

OR

- 4 What is hypothesis testing? Explain in detail about testing hypothesis using p-values [14M]

SECTION-III

- 5 What is supervised learning? Explain about learning curves [14M]

OR

- 6 Differentiate between Supervised and Unsupervised learning [14M]

SECTION-IV

- 7 Discuss about Simple linear regression with an example [14M]

OR

- 8 Explain polynomial regression model in detail [14M]

SECTION-V

- 9 Illustrate the centrality measures with an example [14M]

OR

- 10 Explain the following [7M]  
a) Community Detection [7M]  
b) Ego-Networks

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