

Code No: R20DS501

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

II B.Tech I Semester Supplementary Examinations, June/July 2024**Introduction to Data Science****(B.Tech-AIDS)**

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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.

SECTION-I

- 1 *A* List and explain fundamental libraries available for data science applications? [7M]
 B What are the various Classification of Analytics? [7M]

OR

- 2 *A* What is data science and Explain data science ecosystem installation? [7M]
 B Why Python is selected as programming language? Explain. [7M]

SECTION-II

- 3 *A* Explain about Method in Descriptive Statistics. [7M]
 B Explain the role of inferential statistics for Analysis for various datasets. [7M]

OR

- 4 *A* Explain the following i) Hypothesis Testing ii) p-Value. [7M]
 B Analyze the role of frequentist approach in Statistical Inference. [7M]

SECTION-III

- 5 *A* What is supervised Learning. What are different types of Supervised Learning Explain? [8M]
 B Explain the terms Training, Validation and Testing. [6M]

OR

- 6 *A* Illustrate the concept of Support Vector Machines (SVM). [10M]
 B Which is more important model accuracy or model performance? Explain? [4M]

SECTION-IV

- 7 *A* Explain Polynomial Regression Analysis with advantages and disadvantages. [7M]
 B Explain the role of clustering in data science and write about types of clustering in detail. [7M]

OR

- 8 *A* Explain Regression Analysis and types of Regression Analysis in detail. [7M]
 B Illustrate the concept of Clustering using any Real time Dataset. [7M]

SECTION-V

- 9 *A* Define Centrality with its types [7M]
 B Explain Community Detection and its importance with any example. [7M]

OR

- 10 *A* Explain about Page Rank algorithm with example. [7M]
 B Explain the importance of Drawing Centrality in Graphs. [7M]
