

Special Assignment in lieu of Semester End Practical Examination 2021

B.Sc. (Hons.) Computer Science Semester-VI

Paper Code: **32347608**

Paper Name: **Introduction to Data Sciences**

SET-3

Max. Marks [25]

1. Use the **“USArrests”** built-in dataset to plot beautiful graphs and find meaningful insight about the dataset. You may draft questions yourself and summarize the results. You will be marked for **[10]**
 - a. Creativity
 - b. Presentation
 - c. Originality
 - d. Summarization of results

2. Download the file **Set3.csv** and write the correct code for each of the following : **[15]**
 - I. Read the contents of the file
 - II. Count of the number of records
 - III. View the data in a tabular format
 - IV. Filter the offences on the basis of Locality (QA only) and Type_of_offence (PHYSICAL OFFENSE only).
 - V. Group the offences by Zone.
 - VI. Get a count of the number of records for each group
 - VII. Using ggplot(), plot a barchart displaying the number of offences in each Zone. (use all the possible parameters)
 - VIII. Create a new column called Year_of_event containing the only the year of the event
 - IX. Group the data by year and summarize
 - X. Plot a barchart with column Year_of_event that displays the number of offences by year
 - XI. Create another bar chart that displays the number of offences by month instead of year
 - XII. Group and summarize the data by month.
 - XIII. Rename the columns to make them more user friendly and view the results
 - XIV. What's the need of filtering the data? Show examples using appropriate commands
 - XV. What other charts can you plot for XI ? Which one will leverage more information and why?(elaborate in comments)