**DV QP Sessional Answers**

**1.a) What is data visualization? Differentiate between Descriptive and Inferential Statistics.**

**Ans.1.a)**

**1.b) Explain data types of the R-object with example.**

**Ans.1.b)**

**2.a) Explain the statement of Hypothesis in detail.**

**Ans.2.a)**

**2.b) Explain in short the following term.**

**i) Random Variables ii) Normal Probability Distribution**

**Ans.2.b)**

**3.a) Explain Scatter Plot ? Also explain the advantage and limitation of scatter plot.**

**Ans.3.a)**

**3.b) What is data frame and how it is created in R ? Explain with suitable example.**

**Ans.3.b)**

**4.a) Explain Bar plot? Write a code in R to plot bar plot by taking suitable parameters.**

**Ans.4.a)**

**4.b) Explain Box and Histogram plot with advantage and limitation.**

**Ans.4.b)**

**5.a) What is Conditional Statements? Explain with example.**

**Ans.5.a)**

**5.b) Write a code in python with numpy module to create an array and find sum of all element.**

**Ans.5.b)**

**6.a) What is dictionary? Explain the methods available in dictionary.**

**Ans.6.a)**

**6.b) Write a code in python to read the csv file using pandas module.**

**Ans.6.b)**

**7.a) Explain Matplotlib in details with suitable example.**

**Ans.7.a)**

**7.b) Write a python code to generate a Line Plot with matplotlib.**

**Ans.7.b)**

**8.a) a) List out all Specialized Visualization Tools using Matplotlib? Explain any one in detail.**

**Ans.8.a)**

**8.b) Explain the following term.**

**i) Bubble Plots ii) Waffle Chart**

**Ans.8.b)**

**9.a) Explain seaborn with functionalities and usage.**

**Ans.9.a)**

**9.b) Describe in details the following term.**

**i) Matrix Plots ii) Regression plot**

**Ans.9.b)**

**10) a)Explain Spatial Visualizations and Analysis in Python with Folium?**

**b) An e-commerce company \* wants to get into logistics “Deliver4U” . It wants to know the pattern for maximum pickup**

**calls from different areas of the city throughout 3 the day. This will result in:**

**i) Build optimum number of stations where its pickup delivery personnel will be located.**

**ii) Ensure pickup personnel reaches the pickup location at the earliest possible time. For this the company uses its**

**existing customer data in Delhi to find the highest density of probable pickup locations in the future.**

**Ans.10)**