CSE140: Introduction to Intelligent Systems (Winter 2023)

Lab Evaluation – 1

Marks - 20   **Date** – 16/03/2023   **Duration** -50mins

Instructions –

- Submit the python notebook on google classroom.
- The code should be neat and well documented.
- Do not copy paste from the internet or classmates. **Standard institute plagiarism policy holds**.
- The axes of all the plots should be properly labelled.
- The data points in the scatter plots should be colour-labelled according to the respective output class.

Q1) **Exploratory Data Analysis –**

a) Load the iris dataset into a pandas data-frame, print its shape and display the first 5 entries **[2]**

b) Print the column information of the data-frame **[1]**

c) Visualize the class distribution using a bar chart. **[3]**

d) Make distribution plots for all the 4 features. **[4]**

e) Find the mean and standard deviation of all the 4 features. **[2]**

f) Find the correlation among the features. Also report the correlated features (if any) **[2]**

g) Make pairwise scatter plots for all the features. **[6]**