

School of Computing Science and Engineering

B.Tech CSE
ETE - Jun 2023

Time : 3 Hours

Marks : 100

Sem IV - E1UE401B - Data Visualization

*Your answer should be specific to the question asked
Draw neat labeled diagrams wherever necessary*

1. What are the advantages of NumPy Arrays Over Python Arrays. How to create an empty and a full NumPy Array? K3 CO3 (5)
2. Define Measure of Central Tendency. K2 CO2 (5)
3. Define Visualization History and its Importance. K1 CO1 (5)
4. Describe any five Num PY instructions that are used regularly. Describe the various Numpy operations: (Slicing, Splitting, Filtering, Filtering, Reshaping) K4 CO4 (10)

OR

- Create Seaborn categorizes Matplotlib's parameters into two groups. K4 CO4 (10)
5. Use Seaborn, which analyses the two ratings for five films, to make it visually representation. K4 CO3 (10)
 6. Find Mean, Variance, standard deviation and Coefficient of variation for the following data given below:
Class Interval: 2000-3000 3000-4000 4000-5000 5000-6000 6000-7000
Frequency: 2 5 6 4 3
K2 CO2 (10)
 7. Explain Correlation and Regression with Numerical and Quantitative.. K1 CO1 (10)
 8. Explain Range and Quartile Deviation and Discuss Temporal vs Spatial Plot in Data visualization. Write a program for Sorting, Combining, and Reshaping the data set using Numpy. What is HDFS Federation? How it improves the performance of Hadoop system? K3 CO3 (15)
 9. Create a Choropleth Map and Connection Map by using python. K4 CO4 (15)

OR

- Create a Pie chart and Box plot by using python. K4 CO4 (15)
10. Explain what is a transition in d3.js? Mention the command to interpolate two objects in d3.js?. K3 CO3 (15)