

DAV SAMPLE QUESTIONS

Module 2 – Regression Analysis

2 Marks – Theory

1. Explain any two metrics that measure the overall accuracy of the model. 2
2. Explain lower t-statistics indicate a predictor should be dropped. 2
3. What is logistic regression? 1
4. Explain how logistic regression differs from linear regression. 2

Module 3 – Time Series Analysis

2 Marks – Theory

1. What are the components of time series? 2
2. Write the steps to perform box-jenkins methodology. 2
3. What is the result of the absolute value of ACH(h), when it is closer to 1? 2
4. What are the three conditions for stationary time series? 2

5 Marks – Sums

1. Explain the application of time series in the following sectors. Finance, Economic, Engineering, Retail and Manufacturing. 2
2. Which are the models used for forecasting? 2
3. Explain Auto-correlation function and partial auto-correlation function. 2
4. What are the other methods of Time Series Analysis? 2

Module 5 – Data analytics and visualization with R

2 Marks – Theory

5. Explain Kernel density plot in r with proper example. 2
6. What is main idea for exploratory data analysis and why do you need visualization before analysis? 2

5 Marks – Theory

1. How would you use facet wrap and facet grid methods of visualization with R and give proper examples. 3
2. How will you enhance following R code to display horizontal bar chart and avoid axis labels to overlap? 6

Module 6 – Data analytics and visualization with Python

2 Marks – Theory

1. How would you apply str.cat() to following python code to concatenate address column with name column? 3
2. How would you find determinant and rank for following matrix using python code? 2

5 Marks – Theory

1. How would you use CSR and CSC in scipy to handle sparse data, explain the methods with examples? 3
2. How would you use facet grid and pair grid methods of visualization with python seaborn and give proper examples. 3