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BE SEM VIII (choice based) Summer 2026 CMPN

14/5/26

(3 Hours) **Marks 80**

1) Attempt Any Four

Q1 A Explain Smoothing methods in Time Series Forecasting 10

B Explain SMOTE in detail 10

Q2 A Explain Cross Validation, K-fold cross validation in detail 10

B Explain the Data Science Process in detail 10

Q3 A Explain the significance of data science considering Volume and Dimensions of Data 10

B What is Data Visualization? What is Multivariate data? Explain with an example Scatter plot. 10

Q4 A Explain the working of the ARIMA model in detail 10

B Explain predictive Modelling with respect to Fraud detection. 10

Q5 A Explain all the phases of the Data Science life cycle 10

B Compute the Karl Pearson's coefficient of skewness from the following data 10

Height	58	59	60	61	62	63	64	65
No of Person	10	18	30	42	35	28	16	8

Q6

A Discuss Outlier Detection with density-based methods 10

B Find Bowley's coefficient of skewness of the following series. 10

Size	4	4.5	5	5.5	6	6.5	7	7.5	8
F	10	18	22	25	40	15	10	8	7

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