KAMARAJ COLLEGE (Autonomous)

Accredited with A+ Grade by NAAC

(Affiliated to Manonmaniam Sundaranar University, Tirunelveli)

(3 Pages) **Reg. No:……**

Question Code: 26E02014 **Course Code : 25UECA21**

UG Degree - End Semester Examinations, April 2026

Second Semester

B.C.A

Python for Data Science and Analytics

(For those who joined in June 2025 onwards)

Time : 3 Hours **Maximum : 75 Marks**

PART – A (10 × 1 = 10 Marks)

Answer ALL Questions

Choose the correct answer :

CO:1 1. _____ is the single-line comment in Python.

K:1 (a) // (b) #

(c) /* */ (d) <!-- -->

CO:1 2. _____ is used to take input from user.

K:1 (a) Read (b) Scan

(c) input (d) Get()

CO:2 3. _____ data structure is ordered and mutable.

K:1 (a) Tuple (b) Set

(c) List (d) Dictionary

CO:2 4. Indexing in Python starts from _____.

K:2 (a) 1 (b) 0

(c) -1 (d) Any number

CO:3 5. _____ function returns the mean of an array.

K:2 (a) avg() (b) mean()

(c) average() (d) np.mean()

CO:3 6. _____ method is used to view first few rows of a DataFrame.

K:2 (a) head() (b) top()

(c) start() (d) preview()

CO:4 7. _____ is used to show data distribution.

K:2 (a) Line plot (b) Histogram

(c) Pie chart (d) Bar chart

CO:4 8. Plotly dashboards are mainly_____.

K:1 (a) Static (b) Interactive

(c) Text-based (d) Tabular

CO:5 9. _____ library is commonly used for regression in Python.

K:1 (a) NumPy (b) Pandas

(c) Matplotlib (d) scikit-learn

CO:5 10. Stock price analysis is usually based on _____.

K:2 (a) Static data (b) Text data

(c) Time series data (d) Categorical data

PART – B (5 X 5 = 25 Marks)

Answer ALL Questions choosing either (a) or (b).

Answer should not exceed 250 words.

CO:1 11. (a) Classify the operators.

K:4

(OR)

(b) Distinguish built-in functions vs user defined functions.

CO:2 12. (a) Categorize Lists and Tuples.

K:4

(OR)

(b) Examine about working with date and time.

CO:3 13. (a) Examine indexing and slicing.

K:4

(OR)

(b) Analyze Merging, Joining, Concatenation.

CO:4 14. (a) Construct Line Plot, Bar Chart.

K:3

(OR)

(b) Experiment with Pairplots and Boxplots.

CO:5 15. (a) List any two Descriptive Statistics in Python.

K:4

(OR)

(b) Examine Simple Linear Regression.

PART – C (5 X 8 = 40 Marks)

Answer ALL Questions choosing either (a) or (b).

Answer should not exceed 500 words.

CO:1 16. (a) Explain about data types.

K:5 **(OR)**

(b) Estimate about file handling.

CO:2 17. (a) Determine String manipulation and its methods.

K:5 **(OR)**

(b) Explain Lambda functions.

CO:3 18. (a) Examine Mathematical and Statistical Operations.

K:4 **(OR)**

(b) Distinguish between the methods of handling missing data.

CO:4 19. (a) Explain customizing Axes, Titles, Labels, Legends.

K:5 **(OR)**

(b) Compare visualizing Trends and Outliers.

CO:5 20. (a) Discuss Pearson, Spearman and Heatmap Representation.

K:6 **(OR)**

(b) Compose any business case study in Data analytics.