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MAHATMA GANDHI UNIVERSITY, KOTTAYAM

MGU-UGP (HONOURS) REGULAR EXAMINATION MARCH 2025

SECOND SEMESTER

Multi-Disciplinary Courses (MDC) - MG2MDCCSC100 - DATA VISUALIZATION USING PYTHON

(2024 ADMISSION ONWARDS)

Duration: 1 Hours   **Maximum Marks: 35**

Remember(K), Understand(U), Apply(A), Analyse(An), Evaluate(E), Create(C), Skill(S), Interest(I) and Appreciation(Ap)

Students should attempt at least one question from each course outcome to enhance their overall outcome attainability.

Part A

Very Short Answer Questions

Answer all questions

Each question carries **2 marks**

1.	Arrange the following steps in the correct order to create a Matplotlib plot: (Customize plot, Show plot, Import library, Create figure, Add data).	[K] / [CO1]
2.	Name two Python libraries besides Matplotlib used for data visualization.	[K] / [CO1]
3.	Explain the term 'hover'.	[U] / [CO2]
4.	Write down 2 best practices for data visualization.	[U] / [CO2]
5.	Recall the role of dcc.Graph() in Dash.	[K] / [CO2]

[2x5 = 10]

Part B

Short Answer Questions

Answer any **5** questions

Each question carries **5 marks**

6.	Describe the importance of data visualization in decision-making.	[K] / [CO1]

7. Discuss the advantages and disadvantages of using pie charts for data representation. [U] / [CO2]

8. Discuss when to use box plots and violin plots for statistical visualization. [U] / [CO1]

9. Briefly explain some interactive function available. [U] / [CO2]

10. Discuss about Plotly Graph Objects. [U] / [CO2]

11. What is a multi-plot grid in Seaborn? How is it useful? [K] / [CO1]

12. Describe how to use a built-in dataset in Plotly Express for visualization with an example. [U] / [CO2]

[5x5 = 25]