



ADITYA DEGREE COLLEGES
ANDHRA PRADESH
IV SEMESTER-I MID EXAMINATIONS
BCA-Data Visualization Using Python

Time:
Date:

Max.Marks:60

SECTION-A

I Answer any four of the following Questions.

5X4=20M

1. What is Data Science, and why is it important in today's world?
2. Explain the concept of Exploratory Data Analysis (EDA). What are its primary goals?
3. Why is Python considered a popular language for data analysis? Mention some of its key advantages.
4. What is Scikit-learn, and what are some of its key functionalities in machine learning?
5. Describe the basic data structures in Pandas. How does a DataFrame differ from a Series?
6. What is data loading in Pandas? How do you load data from different file formats?
7. How does Pandas handle missing data? Mention techniques for filling or dropping missing values?
8. How can you manipulate strings in a Pandas DataFrame? Provide an example of string operations in Pandas.

SECTION-B

II. Answer any three Questions

4X10=40M

9. a) Explain the process of Exploratory Data Analysis (EDA). What techniques are used to analyze datasets and identify patterns or anomalies?
(OR)
- b) Explain the importance of Numpy, Pandas, and Seaborn libraries in Python for data analysis?
10. a) Discuss the motivation for using Python for data analysis. How does Python compare to other languages, and why is it preferred?
(OR)
- b) Explain the importance of Jupyter Notebook for data analysis in Python. And explain the installation process of it?
11. a) What are arrays and vectorized computations in Pandas? And Write the features, merits and demerits of it?
(OR)
- b) Discuss the Essential functionalities of Pandas in data analysis. And write the merits and demerits of Pandas?
12. a) How can you summarize and compute descriptive statistics (mean, median, standard deviation) in Pandas? Give example code also.
(OR)
- b) What is Web Scraping, and how can you use Pandas to scrape data from websites? Provide an example. And write the steps involved in it?