

**Fourth Semester FYUGP Degree (Reg) Examination April
2026**

**KU4SECPHY101 - FUNDAMENTALS OF DATA
ANALYTICS**

2024 Admission onwards

Time : 1.5 hours

Maximum Marks : 35

Section A

Answer any 6 questions. Each carry 2 marks.

1. Define the nominal level of measurement with an example.
2. Which library is commonly used to read data files in python?
3. What do you mean by descriptive statistics ?
4. Provide the command to install the Seaborn library using the command prompt.
5. Define cumulative frequency
6. Define frequency in statistics.
7. What is meant by a parameter?
8. What is the use of show() function?

Section B

Answer any 4 questions. Each carry 4 marks.

9. Explain the procedure for converting a Series into a NumPy array and state its significance.
10. Explain the difference between variation in data and variation in sampling.
11. Describe different ways of creating a DataFrame in Pandas.
12. Differentiate between CSV and XLS file formats.
13. Write a Python program using Pandas to read a CSV file named 'data.csv' and display the first 5 rows.
14. Write a Python code to read a dataset from a CSV file and display the first 10 rows and last 5 rows.

Section C

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Answer any 1 questions. Each carry 7 marks.

15. Explain the role of groupby() and aggregate functions in data analysis. Demonstrate how grouped data can be summarized effectively.
16. What is the use of Cat Plot in the data analysis? Write a complete Python program to load the "iris" dataset from Seaborn and create a Cat Plot with $x = \text{'species'}$ and $y = \text{'sepal_length'}$.