## **FDS Sample Problem Statements**

- <u>1.NumPy: -</u> Execute different NumPy array operations.
- 2. NumPy: Universal functions in NumPy (Statistical)
- <u>3. NumPy: -</u> Universal functions in NumPy (Trigonometric).
- 4. Pandas: Various operation using iloc.

Fetching all rows & all columns, all rows & some column, some rows and all columns, some rows & some column, all columns excluding some columns

- <u>5. Indexing & Slicing:</u> Indexing & slicing operations on 2 D NumPy array.
- 6. Indexing & Slicing: Indexing & slicing operations on 3 D NumPy array.
- 7. Null values: Handling null values using pandas' functions.

Prepare a dataset in excel with null values, import the data set using pandas and execute different pandas' function for handling null values.

**8. Null values:** - Handling null values using pandas

Create simple pandas DataFrame with null values and execute different pandas' function for handling null values.

- 9. Matplotlib (2 D): Basic plotting in matplotlib (2D Plotting)
- 10. <u>Matplotlib (3 D): -</u> 3D & sub plotting in matplotlib

(Counter, Surface, Scatter, Line, Density)

## **FDS Sample Problem Statements**

- 11. <u>EDA (One Hot Encoding)</u> Transformation Technique- One Hot Encoding Method for Feature Engineering.
- 12. EDA- Pearson's correlation.
- 13. EDA (Removing Outliers)- Detecting & removing outlier using DBSCAN.
- 14. Measure of central tendency -skewness & kurtosis
- 15. PowerBI: Installation of power-BI & Visualisation using different charts
- 16. Tableau: Installation of tableau & visualisation using different charts

## 17. Combining Data set's: -

Concatenate and Append, Combining Datasets: Merge and Join