1.

a) What code would you use to combine two DataFrames(df1, df2) along the columns?
b) What function would you use to display the first five rows of a DataFrame, and why is it useful?
c) Write a code using Pandas to replace all NaN values in a DataFrame with zeros.
d) How can you check for missing values in a DataFrame?
e) Write code to merge two DataFrames, df1 and df2 ?
f) How do Pandas represent missing data in numeric and non-numeric data types?
g) Write code to filter a DataFrame df to display only rows where the 'Age' column is greater than 25.
h) How can you check for missing values in a DataFrame?
i) Write the command to plot the points (1, 2), (3, 6), (2, 4) as a simple line plot.
j) What does the fillna() function do, and why is it useful? Provide a code example.
k) Describe 'ffill' or 'bfill' method.
l) What is the purpose of the pd.concat() function in Pandas?
m) Describe how to concatenate DataFrames df1 and df2 along columns.
n) How can you display a line plot after plotting it with plt.plot()?

2. Create two DataFrames: one for df1 and one for df2, each with **id, name, and marks**. Then use the pd.concat() function to combine these DataFrames.
3. Using the DataFrames from the previous task, combine them on the **id** column using pd.merge().
4. Add a new column bonus to the combined DataFrame, where the bonus is 10% of the marks (from 2 no question).
5. Import seaborn library and load titanic dataset. Show the first 10 rows of the dataset. Check if there is any null value or not. If you find any null value, replace it with the mean value.
6. How to read csv files? If you have been provided with a proper dataset then how will you read them?

7. You have the following data on monthly rainfall (in millimeters) in your city for the first six months of the year:

Months	January	February	March	April	May	June
Rainfall	80 mm	65 mm	90 mm	78 mm	105 mm	120 mm

Using the data provided:

a) Create a Pandas Series to represent this data, labeling each month accordingly.

b) Select the rainfall data for May using the Series as if it were a dictionary.

8. You have two DataFrames with columns **name**, **age**, and **score**. Use pd.concat() to combine these datasets.

9. Create two 1-dimensional NumPy arrays: array1 with values [1, 2, 3] and array2 with values [4, 5, 6]. Use np.concatenate() to merge them into a single array.