



QP CODE: 25050814



25050814

Reg No :

Name :

MSc DEGREE (CSS) EXAMINATION DECEMBER 2025

First Semester

MSC Data Analytics

Core Courses - ST050107 - PRACTICAL 2

2020 Admission Onwards

F514912D

Time: 3 Hours

Weightage: 30

(Answer any **THREE** questions. Each question carries a weight of **10**)

1. Write a Python program to check whether the last digit divisible by 3 or not?
2. Write a Python program to display number pyramid?
3. Create a dictionary and perform the following:
 - 1) Print the dictionary items
 - 2) access items
 - 3) change values
 - 4) use len()
4. Write a Python program to create a menu to perform all mathematical operations of a calculator. Accept user input and perform the operations accordingly. Use functions with arguments to perform each operation.
5. Given a dataset, company_sales_data.csv, perform the following visualization using Matplotlib.
 - 1) Read Total profit of all months and show it using a line plot
 - 2) Get total profit of all months and show line plot with the following Style properties:
 - (i) Line Style dotted and Line-color should be red
 - (ii) Show legend at the lower right location.
 - (iii) X label name = Month Number
 - (iv) Y label name = Sold units number
 - (v) Add a circle marker.
 - (vi) Line marker color as read
 - (vii) Line width should be 3
 - 3) Read all product sales data and show it using a multiline plot
 - 4) Read sales data of bathing soap of all months and show it using a bar chart.





6. Consider the table SchoolBus and write SQL commands for the following questions:

Rtno	Area_Covered	Capacity	Noofstudents	Distance	Transporter	Charges
1	Vasant Kunj	100	120	10	Shivam travels	100000
2	Hauz Khas	80	80	10	Anand travels	85000
3	Pitampura	60	55	30	Anand travels	60000
4	Rohini	100	90	35	Anand travels	100000
5	Yamuna Vihar	50	60	20	Bhalla Co.	55000
6	Krishna Nagar	70	80	30	Yadav Co.	80000
7	Vasundhara	100	110	20	Yadav Co.	100000
8	Paschim Vihar	40	40	20	Speed travels	55000
9	Saket	120	120	10	Speed travels	100000
10	Janakpuri	100	100	20	Kisan Tours	95000

- 1) To show all information of students where capacity is more than the no. of students in order of Rtno.
- 2) To show Area_covered for buses covering more than 20 km., but charges less than 80000.
- 3) To show transporter-wise total no. of students travelling.
- 4) To show Rtno, Area_covered and average cost per student for all routes where average cost per student is—Charges/Noofstudents.
- 5) Add a new record with the following data: (11, "Motibagh",35,32,10, "kisan tours", 35000).
- 6) To show the total distance 'Yadav Co.' is covering.
- 7) To show the name and number of students where the number of students is minimum.
- 8) To show the average charges of 'Anand travels'.
- 9) To show all the different transporters exactly once.

