SHRI RAMSWAROOP MEMORIAL UNIVERSITY
PROBLEM SET – IV

Session	: 2025-26(Odd Sem)	Semester	: III
Course	: B.tech	Subject Code	: UCS 3804
Branch	: DS + AI	Subject Name	: Data Analytics & reporting
Group	: ALL	Name of Faculty Member	: Mr. Sukhmander singh, Ms. Deepika
Unit	: IV	Topics Covered	: All Topics

1. What are the key features of Microsoft Excel that make it suitable for data manipulation and analysis?
2. Explain how sorting and filtering can be used to organize and explore large datasets in Excel.
3. Describe how to apply conditional formatting to highlight important trends or outliers in data.
4. What is a pivot table? How can it be used to summarize and analyze data in Excel?
5. Explain how to create and customize different types of charts in Excel to effectively visualize data insights.
6. List and explain at least five commonly used Excel functions for data analysis (e.g., VLOOKUP, COUNTIF, SUMIF, AVERAGE, IF).
7. What are pivot charts and how do they differ from regular charts in Excel?
8. How does Excel help with error checking and ensuring data accuracy? Provide examples of built-in error-checking tools.
9. What is data validation in Excel? How can it be used to maintain data integrity in large spreadsheets?
10. What are some best practices for organizing and managing large datasets in Excel to ensure consistency and clarity?

Supplementary Questions:
1. Design an Excel worksheet that includes data entry validation, automatic error highlighting, a pivot table, and at least two charts. Explain each element and its purpose.
2. Discuss a real-life scenario where Excel was used for end-to-end data analysis — from raw data entry to visualization and reporting.

TEXTBOOKS:
1. **Data Science and Analytics** by V.K. Jain
2. IBM Courseware

REFERENCE BOOKS:
1. Data Analytics Made Accessible by Anil Maheshwari

(Signature of the Faculty Member with date)   (Signature of the Dean with date)