**SHRI RAMSWAROOP MEMORIAL UNIVERSITY**

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| **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**  **L T P C**  **2 1 0 3** |
| **Group** | **: ALL** | **Name of Faculty Member** | **: Mr. Sukhmander singh** |
| **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)** | | | |