**24U168**  (Pages: 2)   Name  :  .......................................

Reg. No  :  .......................................

# FIRST SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2024
## (FYUGP)
## CC24U CSC1 FM105 - DATA ANALYSIS AND VISUALIZATION THROUGH SPREAD SHEET
### (B.Sc. Computer Science - MDC)
### (2024 Admission - Regular)

Time: 1.5 Hours                                                    Maximum : 50 Marks

Credit: 3

### Part A (Short answer questions)
Answer *all* questions. Each question carries 2 marks.

1. Clarify the importance of text wrapping when working with long text in a cell.      [Level:2] [CO1]

2. Explain the concept of data validation and how it ensures accuracy in Excel.      [Level:2] [CO2]

3. Apply the "Scenario Manager" in What-if Analysis to compare different pricing strategies for a product.      [Level:3] [CO3]

4. Apply formatting options to change the color scheme of a chart and enhance its visual appeal.      [Level:3] [CO4]

5. Distinguish between relative and absolute cell references in Excel.      [Level:2] [CO1]

6. Summarize the process of inserting a new cell into an Excel worksheet.      [Level:2] [CO1]

7. Differentiate between "Top/Bottom Rules" and "Highlight Cell Rules" in conditional formatting.      [Level:2] [CO2]

8. Provide how to use Goal Seek to determine the break-even point for a product in terms of price and quantity.      [Level:3] [CO3]

9. Apply filters to a Pivot Chart to display only the sales figures for a specific quarter.      [Level:3] [CO4]

10. Differentiate between data cleansing and organizing in terms of their role in data management.      [Level:2] [CO2]

**(Ceiling: 16 Marks)**

### Part B (Paragraph questions/Problem)
Answer *all* questions. Each question carries 6 marks.

11. Explain the use of the Formula Bar in Excel, and illustrate how it aids in creating and editing formulas and functions.      [Level:2] [CO1]

12. Clarify the importance of filtering data to focus on specific information, and give examples of situations where advanced filters would be beneficial. [Level:2] [CO2]

13. Apply the features of a pivot table to organize and summarize a large dataset, and demonstrate how to use it to group data by categories. [Level:3] [CO3]

14. Create different types of charts (bar, pie, and line) to represent sales data for three different products, and apply each chart to highlight different aspects of the data. [Level:3] [CO4]

15. Describe how spreadsheet features like formulas, charts, and data validation are used in business scenarios, and explain their importance. [Level:2] [CO1]

**(Ceiling: 24 Marks)**

**Part C** (Essay questions)

Answer any *one* question. The question carries 10 marks.

16. Use a detailed Pivot Table from a company's sales data that includes product types, customer regions, and sales agents. Apply different filters and illustrate the use of value fields to calculate total sales, average sales, and percentage contribution of each product type. Demonstrate how a well-structured Pivot Table can help senior management analyze sales performance by region and product type. [Level:3] [CO3]

17. Apply form controls to an inventory tracking sheet. Demonstrate how to use sliders or spin buttons to adjust inventory quantities, and illustrate how linking these controls to formulas can automate calculations. Explain how form controls improve user interaction with data in Excel. [Level:3] [CO4]

**(1 × 10 = 10 Marks)**

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