

24U167

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Name :

Reg. No :

FIRST SEMESTER UG DEGREE EXAMINATION, NOVEMBER 2024

(FYUGP)

CC24U CSC1 MN103 - DATA ANALYSIS USING SPREADSHEET

(B.Sc. Computer Science - Minor Course)

(2024 Admission - Regular)

Time: 2.0 Hours

Maximum: 70 Marks

Credit: 4

Part A (Short answer questions)

Answer *all* questions. Each question carries 3 marks.

1. Microsoft Excel is a program typically used to store, sort, and manipulate data. Determine the various fields that we can use excel for data handling. [Level:3] [CO1]
2. Provide the necessary steps to insert rows or columns into an existing Excel worksheet and give scenarios where these actions are necessary. [Level:3] [CO1]
3. Demonstrate how you would use the AutoFill feature in Excel to automatically fill a series of dates starting from January 1st, 2024. [Level:3] [CO2]
4. Provide the steps you would take to sort a sales report by the highest sales values in Excel. [Level:3] [CO2]
5. You are working on a financial model that spans over 10,000 rows and 50 columns. Demonstrate how would you quickly navigate to a specific cell (e.g., E5000) without scrolling? [Level:3] [CO2]
6. Distinguish between COUNT and COUNTIF with example. [Level:4] [CO3]
7. Briefly analyze the usage of TODAY() and NOW() in time-sensitive reports in excel. [Level:4] [CO3]
8. Analyze a case where using POWER might be preferable for complex formula writing. How does the POWER function compare to using the ^ operator for exponentiation in Excel? [Level:4] [CO3]
9. Apply the steps to create a PivotTable to analyze the total sales by region from a sales dataset. [Level:3] [CO4]
10. Demonstrate how would you create a bar chart to compare sales performance between different product categories? [Level:3] [CO4]

(Ceiling: 24 Marks)

Part B (Paragraph questions/Problem)

Answer *all* questions. Each question carries 6 marks.

11. Formatting text or numbers can make them appear more visible especially when you have a large worksheet. Provide the necessary steps to apply various cell formatting on cells. [Level:3] [CO1]

12. Describe how can you add a frequently used command to the Quick Access Toolbar? [Level:3] [CO1]
Provide an example of a command you might add and explain why it is useful.
13. Demonstrate the process of using Excel filters to identify trends in a dataset. How would [Level:3] [CO2]
you apply filters to isolate specific data points, and what benefits does this offer in terms of
data analysis and decision-making?
14. Demonstrate in detail the three main types of cell references used in Excel. Discuss how [Level:3] [CO2]
each type behaves when copied across cells and provide examples of practical scenarios
where each would be most useful.
15. In a sales dataset, you want to give a bonus to employees who either exceed a sales target or [Level:4] [CO3]
have worked more than 10 years in the company. Analyze how combining the AND and OR
functions with IF can help you apply this condition. How would changing the logical
structure affect the outcome?
16. Distinguish between REPLACE and SUBSTITUTE functions in modifying text strings. [Level:4] [CO3]
Analyze a situation where REPLACE would be more effective for specific character
replacement compared to SUBSTITUTE.
17. Given a dataset of student grades. Provide the necessary steps to apply sorting to rank [Level:3] [CO4]
students by their scores. Then, apply filters to show only students who scored above 80.
18. Using HLOOKUP, demonstrate how to find the sales target from a horizontally organized [Level:3] [CO4]
table for a specific quarter. Explain the significance of each parameter in the function.

(Ceiling: 36 Marks)

Part C (Essay questions)

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

19. A formula is an expression that operates on values in a range of cells. Analyse the usage of [Level:4] [CO3]
various formulas and functions in excel using suitable examples.
20. Provide the necessary steps to create a financial dashboard that tracks expenses, income, [Level:3] [CO4]
and profits across different departments. Include charts, tables, and conditional formatting
to highlight key trends. Explain how you structured the dashboard to display relevant
financial data clearly and how you would use data validation and slicers to allow users to
interact with the dashboard.

(1 × 10 = 10 Marks)
