

2025

COMPUTER APPLICATION — VOCATIONAL

Paper : SEC-1

(Session : 2024-25)

[Data Visualization Using Spreadsheet]

Full Marks : 50

The figures in the margin indicate full marks.

*Candidates are required to give their answers in their own words
as far as practicable.*

Answer *question no. 1* and *any four* from the rest.

1. Answer *any five* questions from the following : 2×5
- (a) Define data visualization.
 - (b) What is the purpose of conditional formatting?
 - (c) Name any two spreadsheet software.
 - (d) What is the function of box plot?
 - (e) What is the VLOOKUP function?
 - (f) What is the difference between COUNT and COUNTA function?
 - (g) What is the CONCATENATE function?
2. (a) List the main features of data visualization.
(b) Explain with an example the IFERROR function in Excel.
(c) What is the role of comments in a spreadsheet? How can we track changes in a spreadsheet? 2+3+(2+3)
3. (a) How do you find duplicate values in a column of spreadsheet? Write a technique to remove those duplicate values.
(b) How is a formula different from a function in Excel?
(c) Illustrate with an example to show how the IF() function works in spreadsheet. (2+3)+3+2
4. (a) State various use of pivot table. How do you create a pivot chart in spreadsheet?
(b) Define standardization of data spreadsheet. How will you standardize a set of data? (2+3)+(2+3)

Please Turn Over

(5633)

5. Explain syntax, purpose and examples with output of (a) MID(), (b) RANDBETWEEN(), (c) AVERAGEIF(), (d) AND() TRIM(). 10
6. (a) Why are freeze panes important? Write the steps to perform freezing of panes.
(b) What is the purpose of charts in spreadsheet? Explain the steps to include a bar chart. (3+2)+(2+3)
7. (a) Explain the concept of Monte Carlo Simulation for risk analysis.
(b) State the differences between worksheet and workbook.
(c) What do you mean by standardization of data? 5+2+3
8. (a) Explain the concept of 'lookup array' and 'return array' in the context of Lookup functions. Discuss the importance of 'approximate match' and 'exact match' options in Lookup functions.
(b) Discuss the steps involved in setting up a drop-down list using data validation. Write the significance of 'input Message' and 'Error Alert' options in data validation. (4+1)+(4+1)

(Session : 2023-24)

[Data Visualization Using Spreadsheet]

Full Marks : 75

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Answer **question no. 1** and **any three** from **Section-A** and **any five** from **Section-B**.

1. Answer **any five** questions from the following : 2×5
- (a) Why is data visualization important?
 - (b) What is an excel cell referencing?
 - (c) State the purpose of filter data in excel.
 - (d) Define macros.
 - (e) What is the purpose of 'data validation' in spreadsheets?
 - (f) Write difference between Formulas and Functions.
 - (g) Why do we create Pivot table in excel?
 - (h) What is the purpose of data aggregation?

Section - A

2. (a) What is autofill in excel?
(b) How do you use nested IF function? Explain with example. 2+3

3. (a) What is the purpose of CONCATENATE function?
 (b) Explain the difference between a Table and a Range in excel. 2+3
4. (a) What is data cleaning in excel?
 (b) How do you create named ranges in excel? State its advantages. 1+4
5. (a) Explain use of SUMIF and SUMIFS functions with an example.
 (b) The status of a student is 'Pass' if he secures a percentage greater than or equal to 50 and has an attendance greater than 75 percent otherwise 'Fail'. Write a formula to find the status if cell E1, G1 and H1 contains the values percentage, attendance and status respectively. 2+3
6. Explain the concept of ANOVA. 5

Section - B

7. (a) Write the purpose of freeze panes features in excel.
 (b) Write the steps to perform freezing of panes.
 (c) What is the purpose of charts in a spreadsheet?
 (d) Explain the steps to include a Bar Chart. 2+3+2+3
8. (a) What is the purpose of using lookup functions?
 (b) Differentiate between VLOOKUP and HLOOKUP using suitable examples.
 (c) Explain the purpose of INDEX and MATCH functions. 2+4+4
9. (a) Write down the steps followed in 'what-if' analysis.
 (b) Explain sorting and filtering with suitable example.
 (c) What is the difference between COUNT and COUNTA function? 3+5+2
10. (a) What is collaboration in excel? Why it is important?
 (b) Write the steps to Co-author a workbook.
 (c) Explain the role of version history and revision control in collaborative spreadsheet work. 3+3+4
11. (a) When do we need to 'consolidate' data? Explain how it is done.
 (b) Discuss 'Grouping' and 'Ungrouping' of data.
 (c) How to insert slicer in excel with pivot table? 4+2+4
12. (a) What do you understand by data normalization? How is it done in a spreadsheet?
 (b) Explain with examples the logical functions supported by spreadsheet. (2+2)+6

Please Turn Over
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13. Write notes on *any two* of the following : 5×2
- (a) Goal seek and solver for optimization problem
 - (b) Trend lines and forecasting in charts
 - (c) Histogram and its significance
 - (d) Scenario analysis models.
14. (a) Discuss the significance of data labels, legends and titles in spreadsheet reports. How do these elements contribute to the interpretation of visualized data?
- (b) Discuss the security measures available for protecting sensitive data in shared spreadsheet. 5+5
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