

2025

COMPUTER SCIENCE — HONOURS

(Session : 2024-25)

Paper : SEC-1

(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** questions from the rest.

1. Answer **any five** questions of the following : 2×5
- (a) Explain with example the purpose of absolute cell referencing.
 - (b) How do you adjust column width?
 - (c) What is the VLOOKUP function?
 - (d) How do you highlight duplicates in Excel?
 - (e) State differences between mean and median.
 - (f) Suppose there are some values say 23, 11, 56, 87, 35, 90, 72 from cell ranges A10 to A16. What will be the output of the statement
= ROUND(AVERAGEIF(A1:A7,">50"), 0)?
 - (g) How a cell can be locked?
2. (a) Discuss every step how data validation can be applied on a set of input numbers restricted to non-negative. 5+4+1
- (b) Name any four types of charts available in Excel along with their purposes.
- (c) What is the default row height and column width of cell size? 5+4+1
3. Explain the following functions with example : 2½×4
- (a) IFERROR (b) HLOOKUP (c) COUNTBLANK (d) STDEV
4. (a) Describe the salient features of data visualization.
- (b) Distinguish between autofill and autocopy.
- (c) How can you share worksheet? 2+6+2

Please Turn Over
(5632)

5. (a) Consider the following data and complete the sheet :

ABC Consultants, Jaipur			
Item	Quantity	Unit Price	Gross value
17 Computer System	2	55000.00	
Notebook i5	2	43000.00	
Printer	2	12000.00	
Pen drive	15	560.00	
Total Gross			
Discount		7%	
Amount payable			
Tax on amount payable		4.5%	
Net amount payable			

Calculate Gross value, Total Gross, Discount value, Amount Payable, Tax value and Net amount payable.

- (b) Write steps for tracking changes and commenting. 6+4
6. (a) Write the steps to create a pivot table.
- (b) How will you incorporate trendlines on data table? 5+5
7. (a) Explain sorting and filtering with suitable example.
- (b) How will you split and combine data in spreadsheet?
- (c) What is conditional formatting? 4+4+2
8. Write short notes on (*any two*) : 5×2
- (a) Goal seek vs Scenario manager
- (b) Monte Carlo Simulation
- (c) Data Normalization and Standardization
- (d) Measures of Dispersion.

(3)

D(1st Sm.)-Computer Science-H/SEC-1/CCF
(Session : 2024-25 & 2023-24)

(Session : 2023-24)

Paper : SEC-1

(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.*

1. Answer **any five** questions from the following : 2×5
- (a) Explain the difference between workbook and worksheet.
 - (b) Describe the SUMIF function with example.
 - (c) State syntax of RANDBETWEEN function and give an example.
 - (d) State the importance of dashboard.
 - (e) Name any two widely used spreadsheet software.
 - (f) If you want to change the formatting of a data field, how will you do it?
 - (g) What is the difference between a regular table and a pivot table?
 - (h) What are calculated fields in a pivot table, give example.

Section - A

Answer **any three** questions from the following : 5×3

- 2. Discuss on any five types of formatting cells.
- 3. Write short notes on :
Version history and Revision control
- 4. Explain the concept of Median and Variance.
- 5. Write the steps to add images to worksheet.
- 6. Explain the concept of histogram with an example.

Section - B

Answer **any five** questions from the following :

- 7. (a) You are given a dataset about sales, some of the columns given are Region, Year, Month, Product etc. What kind of analysis, you can do on the same?
- (b) Explain what do you understand by sharing and protecting an excel. 5+(2½+2½)

Please Turn Over
(5632)

8. (a) You are given some academic details of students, their marks across subjects like OS, DBMS, Java etc. What do you understand by the central tendency of the data? What excel functions will you use for the same?
- (b) What are the different parameters of VLOOKUP function? Explain with example. (3+2)+5
9. (a) Write the steps to create a pivot table.
- (b) You are given count of Biharis, Oriyas, Bengalis, Asamias in a city. Explain how you will represent the data using pie chart. 5+5
10. (a) What is the purpose of Goal-seek in spreadsheet? Illustrate with example.
- (b) How will you hide or unhide rows? Write all the major steps. 5+5
11. (a) What are sparklines? How can you insert these in a worksheet?
- (b) Given a worksheet storing record of 20 products, having P_ID in column A, P_Type in column B and Price in column C. Do the following :
- (i) Write steps to highlight all Pens.
- (ii) Write steps to display only those Notebooks whose price is more than Rs. 100. (2+2)+(3+3)
12. Consider in Employee Records worksheet having the following headers in a worksheet :
- ID
 - Name
 - Department
 - Date of Joining
 - Salary
- Write Excel formulae to perform the following :
- (a) Find the Name of employee whose record is at second position.
- (b) Find Date of Joining of Rahul Chatterjee.
- (c) Find number of employees in IT department.
- (d) Find the standard deviation of Salary. 3+3+2+2
13. Explain syntax, purpose and examples with outputs of the following functions :
- (a) IFERROR()
- (b) LOWER()
- (c) MOD()
- (d) NOW()
- (e) COUNT() 2+2+2+2+2

(5)

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14. Write notes on *any two* of the following :

5×2

- (a) Exploratory Data Analysis
 - (b) Monte Carlo Simulation
 - (c) Number Formats
 - (d) Data Filtering.
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