Unit 7: Electronic Spreadsheet (Advanced)

Assignment Solutions

Multiple-Choice Questions (MCQs)

1. A _____ refers to a cell or a range of cells on a worksheet whose data values can be used in a formula.
   a. cell block
   b. cell range
   c. cell reference
   d. cell name

Ans. c

2. Which of the following is a data analysis tool in Calc?
   a Consolidation
   b. What-If Scenario
   c. Goal Seek
   d All of these

Ans. d

3. _____ is a more elaborate form of Goal Seek.
   a. Database
   b Hyperlink
   c. Report
   d. Solver

Ans. d

4. Which dialog box allows you to accept or reject changes in a spreadsheet?
   a. Show Changes dialog box
   b. Accept Changes dialog box
   c. Reject Changes dialog box
   d. Accept or Reject Changes dialog box

Ans. d

5. In getCellByPosition(1,3), what does 3 signify?
   a. Row number
   b. Column number
   c. Sheet number
   d. None of these

Ans. a

Very Short Answer Questions

1. What are the uses of comments?

Ans. Comments are used to add explanations or reminders inside a spreadsheet, helping users understand data or calculations without altering the actual content.

2. What do you understand by the two-input variable-based formula array?

Ans. It is a data table that displays results of one formula while changing two input values arranged across rows and columns.

3. Define the use of the getByIndex() function.

Ans. The getByIndex() function retrieves a sheet from a spreadsheet document based on its index number for further processing.

4. List any four data analysis tools available in Calc.

Ans. Consolidation, Subtotal, Scenario Manager and Goal Seek

5. What do you understand by Goal Seek?

Ans. Goal Seek determines the input value required to reach a desired result in a formula by automatically adjusting one variable.

Short Answer Questions-I

1. What do you understand by macro?

Ans. A macro is a recorded sequence of actions that automates repetitive tasks within a spreadsheet, saving time and ensuring consistency.

2. List down the different ways to rename a sheet in Calc.

Ans. A sheet can be renamed by right-clicking its tab and selecting Rename Sheet or by double-clicking the sheet tab and typing a new name.

3. Discuss the different ways Anita can create a hyperlink in Calc.

Ans. Anita can use Insert → Hyperlink to link webpages, documents, other sheets, or specific cells by choosing the appropriate hyperlink type in the dialog box.

4. Write a difference between one-input and two-input variable-based formula arrays.

Ans. A one-input array varies one value, while a two-input array varies two values simultaneously to generate a comparative result table.

5. What is the purpose of using Solver?

Ans. Solver optimizes results by adjusting multiple variables subject to constraints, helping solve complex analytical problems.

Short Answer Questions-II

1. Write the steps to merge a spreadsheet in Calc.

Ans. To merge spreadsheets, open the main file and go to Edit → Track Changes → Merge Document. Select the spreadsheet to merge, and Calc will display the differences. You can then accept or reject each change, ensuring that only required updates are incorporated into the final document.

2. How do you find comments using Navigator?

Ans. You can locate comments by opening the Navigator from the View menu and expanding the Comments section. All comments appear as a list, and double-clicking any entry instantly moves the cursor to the corresponding cell in the sheet.

3. What is the purpose of Consolidating Data in spreadsheets?

Ans. Consolidation helps combine data from multiple sheets or ranges into one summary sheet. It allows users to aggregate values using functions such as SUM or AVERAGE, making the analysis of large or distributed data easier.

4. Describe the importance of using Multiple Operations in Calc.

Ans. Multiple Operations allows users to view how changing one or two variables affects a formula's outcome. It creates a table of calculated results automatically, helping in forecasting, comparison, and decision-making.

5. Write the steps to format comments in a spreadsheet.

Ans. To format a comment, first display it and select the comment box. You can change the font, size, colour, and background. The box may be resized or moved, and clicking outside saves the formatting.

Long Answer Questions

1. Enlist the steps to sort the columns data with the help of macro.

Ans. Sorting column data using a macro helps automate repetitive sorting tasks. To create such a macro, begin by opening the spreadsheet and selecting Tools → Macros → Record Macro. Calc now records every action performed. Select the data range to be sorted, then go to Data → Sort and choose the sorting criteria, such as selecting the primary column and specifying ascending or descending order. After completing the sorting operation, click Stop Recording to end the macro capture. A dialog appears prompting you to save the macro under a specific library, module, and name. Once saved, the macro can be executed anytime through Tools → Macros → Run Macro. This enables Calc to automatically repeat the same sorting steps without manual intervention. Such automation is beneficial for datasets that require frequent, identical sorting operations, increasing efficiency and ensuring consistent results throughout spreadsheet use.

2. How can Rohit create a macro in Calc to automate his repeated tasks?

Ans. Rohit can automate repetitive spreadsheet tasks by using Calc's macro recorder. He begins by opening his worksheet and selecting Tools → Macros → Record Macro, which starts capturing every action he performs. He then carries out his daily tasks, such as entering formulas, formatting cells, updating totals, or modifying layouts. When he finishes these steps, he clicks Stop Recording. Calc then prompts him to save the macro by assigning a meaningful name and selecting a library. Once stored, the macro becomes reusable. To run it, Rohit simply goes to Tools → Macros → Run Macro, selects the saved macro, and executes it. Calc automatically repeats the recorded sequence, saving time and reducing errors. This ensures consistency in daily work and increases productivity, especially when dealing with lengthy or repetitive spreadsheet processes.

3. Write the procedure to add and edit comments in a spreadsheet.

Ans. Adding and editing comments helps explain data and improve collaboration. To add a comment, select a cell and choose Insert → Comment or right-click and select Insert Comment. A comment box appears in which the user may type notes or explanations. Clicking outside the box saves the comment and displays a small indicator on the cell. To edit a comment, right-click the cell and select Edit Comment, allowing modifications to be made directly inside the box. Users may also change text formatting, such as color, font, or size, to improve readability. The comment box can be dragged to reposition it or resized for clarity. These features make it easier to document the meaning or purpose of data without altering spreadsheet values, ensuring better communication among users working on the same file.

4. What is the main purpose of Goal Seek in Calc? Give an example to support your answer.

Ans. The main purpose of Goal Seek is to determine the input value required to obtain a specific result from a formula. Instead of manually testing values, Goal Seek automatically adjusts one variable until the formula reaches the desired outcome. This makes it especially useful in financial calculations, budgeting, and forecasting. For example, suppose a user wants a monthly EMI of □8,000 but does not know the loan amount that would generate it. By selecting the EMI formula cell as the target, setting the target value to 8000, and choosing the loan amount as the variable cell, Goal Seek calculates the exact principal amount required. This eliminates guesswork and ensures accuracy in situations where the output is known but the input is not. It is widely used in academic, business, and financial modeling scenarios.

5. How should Meera analyze the data in LibreOffice Calc to get the required list?

Ans. Meera can analyse the employee salary sheet effectively by using filtering, column selection, and subtotals. She begins by selecting the full dataset and opening Data → Filter → Standard Filter. Here she enters two conditions: Department = HR and Salary > 25000, connecting them with AND. This displays only the records meeting both conditions. To present a cleaner report, she hides unnecessary columns and keeps only Employee Name, Designation, and Salary visible. If she needs grouped summaries, she can apply Data → Subtotals to calculate totals or averages within filtered results. By adjusting column widths, formatting headings, and reviewing filtered rows, Meera produces a neat and easy-to-read list. This method allows her to extract accurate information from a large dataset and present only the relevant employees who satisfy the given conditions.