SUPPLEMENT

10 CBSE

INFORMATION TECHNOLOGY

CODE 402 | Skill Education

(Answer Key)


Based on Windows & LibreOffice

Beta*

*Updated Copy Coming Soon

ORANGE

Class X

ANSWER KEY

Part B: Subject Specific Skills

1. Digital Documentation (Advanced)

Quiz Bee
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Do It Yourself

Quiz Bee
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Do It Yourself

Exercise

Unsolved

Section A: (Objective Type Questions)

A.

1. c	2. a	3. a	4. a	5. B	6. a
7. c	8. b	9. d	10. b	11. d	12. a
13. a	14. c				

B.

1. Gallery	2. N#	3. Bring to Front
4. Solarization	5. Media	6. Modifying
7. T	8. Pop Art	

C.

1. True	2. False	3. False	4. True	5. False

Section B: (Subjective Type Questions)

A. 1. Anchoring refers to the reference point for the graphics.

2. Under the Format menu, Alignment, Arrange, Wrap feature of an image can be accessed.

3. The **To Foreground** option moves the drawing object in front of the text. While, the **To Background** option moves the drawing object behind the text

4. The buttons used in Table of Content are:
   - The **N#** button inserts the heading number or list number of the entry.
   - The **E** button represents the entry text.
   - The **T** button represents a tab stop.
   - The **#** button represents the page number.

5. Four effects of Filter tool are as follows:
   - **Smooth:** It softens the contrast of the image.
   - **Sharpen:** It increases the contrast of the image.
   - **Remove Noise:** It removes single pixels from the image.
   - **Aging:** It brings the impact of time with the age.

B. 1. **Cropping an image**

It involves removing unwanted portions of the image to focus on a specific area or to improve its composition. It is equivalent to using a scissor to cut the unwanted part.

Resize an Image

Sometimes an image size is required to be altered in a document either by increasing its size or by decreasing its size. Resizing is the process of reducing or enlarging the size of the image. The resizing of a picture will alter the resolution of a picture.

2. To crop an image, perform the following steps:

Step 1: Select the image in the Writer document.

Step 2: Click on the **Crop Image** tool from the **Image** toolbar.

Notice that, the eight little squares surrounding the image will be transformed into blue handles.

Step 3: Click and drag the handles on the image to adjust the crop region as desired. You can crop from any side or corner.

The image is cropped.

3. Grouping of the drawing objects is the process of combining two or more objects to behave as one object. It becomes easier to move, cut, or copy the grouped objects. The number of objects grouped can easily be ungrouped.

The steps to group the objects are as follows:

Step 1: Select multiple objects by using mouse click and holding the **Shift** key.

Step 2: Click on the **Format** → **Group** option and then select the **Group** option from the sub menu.

OR

Right-click on the selected objects and then select the **Group** option from the context menu.

OR

Select the **Group** option from the **Drawing Object Properties** toolbar.

The selected objects get grouped into one object.

4. Text Wrapping allows the placement of image in relation to text. Text Wrapping tools are available under Drawing Object Properties toolbar. Text wrapping is essential for integrating graphics seamlessly into the text flow of a document.

   Different options to wrap text are as follows:

   - **None:** The text is placed above and below the image.
   - **Before:** The text is placed before the image.
   - **After:** The text is placed after the image.
   - **Parallel:** Text flows around the image. Moving an image will rearrange the text on the page.
   - **Through:** The image comes above the text. In this case the image should have transparency so that the text below it is visible properly.
   - **Optimal:** Optimal prevents text from being placed to the side of the image if the spacing between the image and the margin is less than 2 cm.

5. After reviewers have made changes and provided comments, LibreOffice Writer enables you to compare the original document with the reviewed version. You can then select the option(s) that best suit your needs.

   To compare the document, perform the following steps:

   Step 1: Open the reviewed document.

   Step 2: Select the **Edit Track Changes Compare Documents** option from the **Menu** bar.

   OR

   Click the **Compare Non-Track Changed Document** button in the **Track Changes** toolbar.

   The **Compare to Original Document** dialog box opens.

   Step 3: Browse and select the original file to be compared.

   The **Manage Changes** dialog box is displayed.

   Step 4: Accept or reject the desired changes by clicking the respective buttons.

   Step 5: Click the **Close** button to close the dialog box when done.

   Step 6: Save the edited file.

C. 1. Shinjini can use the following important features in LibreOffice Writer to design an invitation card for her parents' 25th wedding anniversary:

- Set the page size and orientation to "Portrait" or "Landscape," depending on the card design.
- Apply proper style to text and paragraph.
- Add borders around the card or specific sections to create a framed look and apply shading or background colours to make the card visually appealing.
- Insert images like a photo of her parents, decorative elements, or anniversary-themed icons (e.g., hearts, rings, champagne glasses). Also, use clipart or download suitable images and icons to enhance the card.
- Use shapes (e.g., rectangles, ovals) to create custom sections or highlight specific parts.
- Use text boxes to place text in specific areas of the card. Also, utilize text wrapping around images or shapes for better layout management.
- Check the invitation card in "Print Preview" mode to ensure all elements are correctly aligned and appear as intended.

By using these features, Shinjini can create a beautiful and personalized invitation card for her parents' special occasion in LibreOffice Writer.

2. Advika can use several methods to add images to her document:

- Inserting an image using Insert menu
- Inserting an image using Drag and Drop method
- Inserting an image using Copy and Paste option

Using Insert Menu

To insert image using Insert menu, follow the given steps:

Step 1: Open the document in which you wish to insert an image.

Step 2: Click on **Insert** menu and select the **Image** option.

The **Insert Image** dialog box opens.

Step 3: Select a specific folder and subfolder and click on the image file that you wish to insert.

Step 4: Click on **Open** button.

The image will be inserted at the desired position.

Using Drag and Drop Method

To insert image using drag and drop method, follow the given steps:

Step 1: Open the document in which you wish to insert an image.

Step 2: Open **File Explorer** and locate the image you want to insert.

Step 3: Select the file and drag it into the desired place in a document.

Step 4: After reaching the desired place, release the left mouse button.

You will see the image inserted into that selected place in the document.

Using Copy and Paste Option (Using Clipboard)

To insert image using copy-paste option, follow the given steps:

Step 1: Open the document and select the picture which you wish to copy.

OR

Select the image from the desired location.

Step 2: Click on the **Edit** menu and select the **Copy** option**.**

The image will be copied to the clipboard.

Step 3: Move to the location where you wish to paste the copied image from the clipboard.

Step 4: Click on the **Edit** menu and select the **Paste** option**.**

3. a. The steps to draw a rectangular box in the document are as follows:

Step 1: Move to the location in the document where you wish to draw a rectangular.

Step 2: Select the **Rectangle** tool from the **Drawing** toolbar.

The mouse pointer changes to a thin plus sign.

Step 3: Drag and then release the mouse button to create a rectangular shape of an appropriate size.

The mouse pointer is still with a thin plus sign which means you can draw as many shapes as you want.

b. Two text wrapping options available in a word processing software:

- **Before:** The text is placed before the image.
- **After:** The text is placed after the image.

c. The steps to give a watermark effect to an image are as follows:

Step 1: Select the image in the document on which you want to apply Image Mode tool. The **Image** toolbar appears.

Step 2: Click on the **Image Mode** tool. A drop-down menu appears.

Step 3: Select the **Watermark** option.

The watermark effect is applied to the image.

d. The steps to group different objects created in a document:

Step 1: Select multiple objects by using mouse click and holding the **Shift** key.

Step 2: Click on the **Format** → **Group** option and then select the **Group** option from the sub menu.

OR

Right-click on the selected objects and then select the **Group** option from the context menu.

OR

Select the **Group** option from the **Drawing Object Properties** toolbar.

The selected objects get grouped into one object.

4. To create an index page in LibreOffice Writer, ABC Publisher can use the Table of Contents feature. TO do this, follow the given steps:

   Step 1: Move to the place in a document where you wish to insert a table of contents.

   Step 2: Select the **Insert** → **Table of Contents and Index** → **Table of Contents, Index or Bibliography** option from the **Menu** bar.

   Step 3: The **Table of Contents, Index and Bibliography** dialog box opens.

   When you select the **Preview** check box, the Preview Pane appears at the right of the dialog box, which displays the preview of the table of contents.

   Step 4: Apply the different settings in the different options in the **Table of Contents, Index and Bibliography** dialog box opens.

   Step 5: Click on the **OK** button.

5. c. A is true but R is false.
6. b. Both A and R are true but R is not the correct explanation of A.
7. a. Statement 1 is TRUE, Statement 2 is TRUE.
8. c. Statement 1 is TRUE, Statement 2 is FALSE.

2. Electronic Spreadsheet (Advanced)

Do It Yourself

Do It Yourself

Exercise

Unsolved

Section A: (Objective Type Questions)

A. 1. b 2. c 3. c 4. b 5. c 6. d
7. c 8. b 9. a 10. a

B. 1. .ods 2. name 3. 1 4. = 5. Internet
6. Absolute Hyperlink 7. Cell Reference 8. Deleted

C. 1. False 2. True 3. False 4. True 5. True 6. True
7. True

Section B: (Subjective Type Questions)

A. 1. You can rename a sheet by performing the following steps:

Step 1: Double-click the sheet in the **Sheet** tab.

OR

Right-click on the sheet in the **Sheet** tab and select the **Rename Sheet** option from the context menu.

OR

Select the sheet in the **Sheet** tab and then select the **Sheet Rename Sheet** option from the **Menu** bar.

The **Rename** dialog box opens.

Step 2: Delete the old name and type a new name of your choice in the **Name** text box.

Step 3: Click on **OK** button.

2. **Relative Hyperlink:** It refers to reaching the linked document with respect to the current location. It will include the partial cell address in hyperlink. If the start and target locations change relative to each other, then relative hyperlink will not work.

Absolute Hyperlink

It refers to reaching to the linked file by writing the complete address starting from the root directory. If the target location is changed then the absolute hyperlink will stop working.

3. The steps to show comment in a spreadsheet are:

Step 1: Select the cell containing comment that you want to show.

Step 2: Right-click on the selected cell and select the **Show Comment** option from the context menu.

The comment is displayed in the spreadsheet.

The steps to hide comment in a spreadsheet are:

Step 1: Select the cell containing comment that you want to hide.

Step 2: Right-click on the selected cell and select the **Hide Comment** option from the context menu.

The comment is hidden in the spreadsheet.

4. The steps to enable Macro recoding feature are as follows:

Step 1: Select the **Tools Options** option in the **Menu** bar.

The **Options** dialog box opens.

Step 2: Click on the **LibreOffice** category. The **LibreOffice Base** category expands and displays the options.

Step 3: Select the **Advanced** option. The options related to advance features of LibreOffice displays on the right-side of the **Options** dialog box.

Step 4: Select the **Enable macro recording (may be limited)** check box.

Step 5: Click the **OK** button.

5. The steps to compare spreadsheets are as follows:

Step 1: Open edited spreadsheet.

Step 2: Select the **Edit Track Changes** option from the **Menu** bar.

Step 3: Select the **Compare Document** option from the submenu.

The **Compare to Original Document** dialog box appears.

Step 4: Select the original spreadsheet and click on **Open** button.

The **Manage Changes** dialog box opens with the changes after comparing the document.

Step 5: Accept or reject the changes and click on **Close** button.

6. To record a macro in LibreOffice Writer, you need to first enable the **Macro Recording** feature and then click on the **Tools Macros → Record Macro** option.

B. 1. There may be different issues with the shared document whenever you wish to save them:

- If it has not been modified and saved by another user since you opened it, it is saved as usual.
- If the spreadsheet has been modified and saved by another user since you opened it, one of the following will occur:
  - If the changes made by others do not conflict with the changes made by you then the document is saved and the message "Your spreadsheet has been updated with changes saved by other users" appears, and any cells modified by the other user are shown with a red border.
  - If the changes conflict, the **Resolve Conflicts** dialog will appear. You must decide for each conflict which version to keep, yours or the other person's. When all conflicts

are resolved, the document is saved. While you are resolving the conflicts, no other user can save the shared document.

- No two or more users can save the same shared document at the same time. If the other user is trying to save the same shared document. Then you will not have the permission to save it. The document will be locked with the message merge-in in progress. You have to cancel the save command and retry later.

When you successfully save a shared spreadsheet, the document shows the latest version of all changes saved by all users.

2. The steps to record a macro are as follows:

   Step 1: Create a new spreadsheet.

   Step 2: Select the **Tools Macros** option from the **Menu** bar.

   Step 3: Select the **Record Macro** option from the submenu.

   The recording will start immediately.

   Step 4: Add the names of five cities, format the list with different font colours, cell background colour.

   Step 5: After you are done with the steps for recording macro, click on the **Stop Recording** button.

   The **Basic Macros** dialog window opens.

   Step 6: Click on (+) sign in front of **My Macros** → **Standard** → **Modules1**.

   The name of the macro by default is **Main** and is saved in the **Standard** Library in **Module1**. You can change the name of the macro in the **Macro Name** textbox.

   Step 7: Click on **Save** button.

   The macro is saved.

   The steps to run a macro are as follows:

   Step 1: Create a new spreadsheet or open an existing spreadsheet where you want to run a macro.

   Step 2: Select the **Tools Macros** option from the **Menu** bar.

   Step 3: Select the **Run Macro** option from the submenu.

   The **Macro Selector** dialog box opens.

   Step 4: Open the folders by clicking on (+) sign in front of My **Macros** → **Standard** → **Module1**. The list of macros within it will be displayed.

   Step 5: Select the macro.

   Step 6: Click on the **Run** button, as shown in below figure:

   The macro runs in the spreadsheet.

3. Follow the given steps to link data from an external source:

   Step 1: Select the cell where you want to insert data from external source.

Step 2: Select the **Sheet** → **External link** option from the **Menu** bar.

The **External Data** dialog box opens.

Step 3: Type the path of the external data source in the **URL of External Data Source** text box or click on the **Browse** button to select the file.

The **Insert** dialog box opens.

Step 4: Navigate the location and select the file. Then, click on the **Open** button.

The path of the external source is displayed in the **URL of External Data Source** text box.

Step 5: Select the named ranges or tables you want to insert.

Step 6: Select the **Update every check box to specify the time by which** the selected ranges or tables are updated automatically.

Step 7: Click on **OK** button.

The external data is linked to the sheet.

4. Whenever a macro is created the code generated equivalent to the instructions given in a recorded macro are stored internally in LibreOffice Calc in a programming language called BASIC. It is also possible to view and thus edit the code of a macro, if you have knowledge of BASIC. You can view the code generated for the macros by following the given step:

Step 1: Select the **Tools Macros** option from the **Menu** bar.

Step 2: Select the **Organise Macros Edit Macros** option from the submenu.

This will open a code window as shown below:

You will see that the code begins with **sub** followed by a macro name and ends with **End Sub**.

5. The steps to create a simple macro function are as follows:

Step 1: Create a new spreadsheet.

Step 2: Select the **Tools Macros** option from the **Menu** bar.

Step 3: Select the **Organise Macros Edit Macros** option from the submenu.

The **Macro** code window opens.

Step 4: Create an empty line after **Sub main** and **End Sub**. Write the given code:

```
Function Displaycontent()
Displaycontent()=”Macros are interesting”
End Function
```

The code window after the given code is entered.

Step 5: Press **Ctrl+S** or click on **Save** button on the Standard toolbar to save the changes in the code window.

Step 6: Close the code window.

Step 7: Now, when we type **=Displaycontent()** in any cell in the sheet.

Then, you will see the text **Macros are interesting** displayed automatically in a cell as shown below:

6. Follow the following steps to format the comment.

   Step 1: Right click on the cell where the comment is added.

   Step 2: Select the option "Format cell", which will display the Format Cells dialogue box.

   Step 3: You can apply the various formatting features from its tab such as Font, font Effects, Alignment, Borders, Background and Cell Protection. Change the font, text colour, fill colour, line colour for the comment box as desired and click on OK button to apply the changes.

   Observe the desired formatting features applied to the comment box.

7. Data analysis plays a pivotal role in modern organisations for numerous reasons. Data analysis helps organisations in various tasks such as informed decision-making, problem-solving, understanding customer behaviour, improving efficiency, performance evaluation, and risk management. It is required to study the trends of products required in the local and global market. It is an important part of many organisations for planning and taking important decisions for the progress of the company.

   The LibreOffice Calc offers several built-in tools for data analysis, which are essential for performing various analytical tasks directly within the spreadsheet software. These tools include Data Consolidation, What-if Analysis, Goal Seek, solver and many more.

C. 1. The best tool for Amit to combine and find the average of marks obtained by his five friends in the previous three periodic tests is Data Consolidation.

   The steps to use it:

   Step 1: Click on the **Data** menu.

   Step 2: Select the **Consolidate** option.

2. The appropriate what-if analysis tool for Rohit to calculate the score in IT to achieve 80 percent in aggregate is **Goal Seek.**

   The steps to use it:

   Step 1: Click on the **Tools** menu.

   Step 2: Select the **Goal Seek** option.

3. Krish and Kritika should use Sharing a Spreadsheet feature to access and work on the same spreadsheet simultaneously. This allows multiple users to collaborate on the same document in real-time, making it ideal for projects like their survey.

   The steps to use the share a spreadsheet feature:

   Step 1: Click on the **Tools** menu.

   Step 2: Select the **Share Spreadsheet** option.

4. The what-if analysis tool that Rohan can use in LibreOffice Writer to find the money, he can now afford to spend is **Goal Seek**.

   The steps to use it:

   Step 1: Click on the **Tools** menu.

   Step 2: Select the **Goal Seek** option.

5. a. **Track Changes** is the feature Raj should use to see the changes made by his employees.

   b. The steps to use the Track Change feature are as follows:

      Step 1: Click on the **Edit** menu.

      Step 2: Select the **Track Change** option.

   c. The steps to add comment to the changes made are:

      Step 1: Select the changes cell in the reviewed spreadsheet.

      Step 2: Select the **Edit** → **Track Changes** option from the **Menu** bar.

      Step 3: Select the **Comment** option from the submenu.

      The dialog box opens with automatically-added change.

      Step 4: Type your own comment in the **Text** text box.

      Step 5: Click on the **OK** button.

   d. To accept or reject changes in a spreadsheet, perform the following steps:

      Step 1: Open the reviewed spreadsheet.

      Step 2: Select the **Edit Track Changes** option from the **Menu** bar.

      Step 3: Select the **Manage** option from the submenu.

      The **Manage Changes** dialog box opens.

      Step 4: Click the **Accept** or **Reject** button to accept or reject the selected changes made, respectively.

      Step 5: Click the **Accept All** or **Reject All** button to accept or reject all the changes made, respectively.

      Step 6: Click the **Close** button to close the **Manage Changes** dialog box dialog box.

6. a. To insert a sheet, perform the following steps:

      Step 1: Select a sheet where you want the sheet to be inserted after it or before it.

      Step 2: Click on **Sheet Menu** and select Insert **Sheet** option from the **Menu** bar.

      OR

      Right-click on the empty area in the **Sheet** tab and select **Insert Sheet** option from the context menu.

      OR

      Click the **Add new sheet** button in the **Sheet** tab.

The **Insert Sheet** dialog box opens.

Step 3: Specify the details in the dialog box

Step 4: Click the **OK** button.

b. You can rename a sheet by performing the following steps:

Step 1: Double-click the sheet in the **Sheet** tab.

OR

Right-click on the sheet in the **Sheet** tab and select the **Rename Sheet** option from the context menu.

OR

Select the sheet in the **Sheet** tab and then select the **Sheet Rename Sheet** option from the **Menu** bar.

The **Rename** dialog box opens.

Step 2: Delete the old name and type a new name of your choice in the **Name** text box.

Step 3: Click on **OK** button.

c. Follow the given steps to delete a spreadsheet:

Step 1: Right-click the sheet on the **Sheet** tab and select the **Delete Sheet** option from the content menu.

OR

Select the sheet in the **Sheet** tab and then select the **Sheet Delete Sheet** option from the **Menu** bar.

The **Confirmation** message box appears.

Step 2: Click the **Yes** button to confirm the deletion of sheet.

d. To create a hyperlink, follow the given steps:

Step 1: Select the cell in a spreadsheet in which you want to create hyperlink. If there is already some text, then select the text.

Step 2: Click on **Hyperlink** icon on the **Standard** toolbar.

OR

Select the **Insert Hyperlink** option from the **Menu** bar.

The **Hyperlink** dialog box will open.

Step 3: Select the Internet option

Step 4: Enter the URL (web address) of the website or webpage you want to link to in the **URL** text box.

Step 5: Type the text you wish to make as hyperlink in the **Text** text box.

Step 6: Click on the **OK** button.

7. b. Both A and R are true but R is not the correct explanation of A
8. a. Both A and R are true and R is the correct explanation of A
9. d. Statement 1 is FALSE, Statement 2 is TRUE

3. Database Management System

Do It Yourself

Do It Yourself

Do It Yourself

Do It Yourself

Do It Yourself

Exercise

Unsolved

Section A: (Objective Type Questions)

A. 1. d 2. c 3. c 4. a 5. a 6. a
7. b 8. d 9. c 10. a

B. 1. Forms 2. Primary 3. Query 4. Alternate 5. Record 6. Candidate
7. Data type 8. Table Data View 9. Image 10. Sorting

C. 1. True 2. True 3. True 4. True 5. True 6. True
7. True 8. True 9. True 10. True

D. 1. d 2. b 3. a 4. e 5. c

Section B: (Subjective Type Questions)

A. 1. **Entry Required**

The field with Entry Required as "Yes" means that the field cannot be left blank. The user needs to enter data in this field. It contains a drop-down "Yes"/ "No". The default value for this property is "NO" which means the field if left blank will contain a NULL (nothing) value.

Default Value

It's the value that can be assigned to the field, by default. This value gets automatically added in a field at the time of adding a record in a table. The user, if wants can make a change in it.

2. Data Redundancy means keeping multiple copies of the same data in a system.

3. Referential Integrity is a fundamental rule in relational databases that ensures the consistency and validity of relationships between tables. It deals with the rule that values of **foreign key** in one table is derived from the values of **primary key** in another table to ensure that this relationship between two tables will provide accurate and consistent data.

Referential Integrity helps in the following conditions:

- Whenever a new record is added in a table with the foreign key then it ensures that the value added should exist in a primary key of the other linked table.
- Update or deletion in the Table with the primary key is not allowed if the matching record exists in the foreign key of the other table.

4. A report displays the retrieved data in an appealing and customised format. Reports can be created from a table, a query, or both. Ideally, if a report needs to be generated from

multiple tables, it is recommended to first create a query and then use that query to generate the report.

5. A data model in database management systems (DBMS) is a conceptual representation of how data is organised and structured within the database. It defines the relationships between different types of data, the constraints that apply to the data, and the operations that can be performed on the data.
6. Memo data type stores up to the max length or number indicated by user. It is used to store some descriptive data having more than 255 characters. Memo data type allows to store text data up to 64000 characters. For example: Medical description of a patient, Student achievement details in student table.
7. Query is a set of commands that retrieve and display data from one or more tables in a database. This is done by giving specific search criteria to the DBMS so that we can view the exact information that we want.
8. To create a table, select the **Table** option in the **Database** pane. In the LibreOffice Base, there are two methods that are used to create a table. These methods are as follows:
   - Create Table in Design View
   - Use Wizard to Create Table
9. The significance of default values in a database field is that they provide a pre-determined value that will be automatically entered into the field for new records unless the user manually changes it.
10. Design View allows you to manually specify the structure of your table by defining its fields, data types, and properties. While, the datasheet view is used to enter data in a table.

B. 1. Some advantages of the database are as follows:

- **Organised storage:** Databases employ structured formats and indexing mechanisms to organise data efficiently, which allows fast and accurate retrieval of information. This organisation typically follows a predefined schema, ensuring data integrity and facilitating query operations.
- **Data analysis:** DBMS systems provide powerful querying capabilities that enable users to perform various analyses on the stored data. Aggregate functions, sorting, filtering, and grouping operations make it easy to understand such as maximum, minimum, average, or other statistical measures from the data.
- **Reduces data redundancy:** Data Redundancy means keeping multiple copies of the same data in a System. Using DBMS, the data in tables are interlinked through a common column to avoid duplicate entries. Data constraints are applied to store data based on different criteria.
- **Sharing of data:** It means data can be accessed by multiple users at the same time. Different users can have different rights and privileges to access data. Some may have the right to only view the data. Some may have permission to modify the data. Database

administrators manage the rights and privileges for sharing data through a centralised system.

2. There are three important types of relationship that can be created in a database which are as follows:
   - **One-to-One:** In this type "One record of Master table is related to only one record of Transaction Table". It is represented as a 1:1 relationship.
   - **One-to-Many:** This is one of the most common types of relationship between the tables in a database. In this type "Each record of Master table is related to multiple Records of Transaction table." It is represented as a **1:n** relationship.
   - **Many to Many:** In this relationship, "Multiple records of Master table is related to multiple records of Transaction table". Generally, this type of relationship is set when certain records must be saved more than once in both the related tables. It is represented as a **n:n** relationship.
3. To create a table, select the **Table** option in the **Database** pane. In the LibreOffice Base, there are two methods that are used to create a table. These methods are as follows:
   - **Creating a Table in Design View:** Design View allows you to manually specify the structure of your table by defining its fields, data types, and properties. You have complete control over the table's layout and can directly define attributes such as field names, data types (e.g., text, number, date/time), field sizes, and validation rules like creating tables using Design View gives us more flexibility.
   - **Use Wizard to Create Table:** A wizard is a step-by-step process of doing a specific task through a set of dialog boxes. Creating tables using wizards offers a convenient and efficient approach to database design, particularly for users who are less experienced or who need to quickly prototype database structures. On the other hand, for some users creating the table using wizard restricts to use the same fields in the pre-designed tables. It may not solve the purpose in real scenario, as it will create a table with the different columns that are not matching with the user's column choice.
4. Sorting means rearrangement of the data either in the ascending order (smaller value to bigger value) or in the descending order (bigger value to smaller value). The records will be rearranged with respect to the sorted field.

   The steps to sort the table are as follows:

   Step 1: Select the table.

   The table opens in the **Table Data View** window.

   Step 2: Click on the column header based on which you want sort the data.

   Step 3: Click on the **Sort Ascending** button to sort data in ascending order. All the records will be rearranged in the ascending order.

   OR

Click on the **Sort Descending** button to sort data in descending order. All the records will be rearranged in the descending order

The **Sort Ascending** and **Sort Descending** button sorts the data by one criterion only. LibreOffice Base allows you to combine several criteria by selecting Sort icon on the toolbar. The **Sort Order** dialog can be used to do the required changes, perform the following step for the same:

Step 1: Click on the **Sort** icon on the toolbar.

The **Sort Order** dialog box opens, as shown below:

Step 2: Select the **Field name** and **Order** from the drop-down list.

Step 3: Click on the **OK** button.

5. To open an existing table in a database in LibreOffice Base, you can use the following two methods:

Method 1: Using double-click

Step 1: Open the **LibreOffice Base** application and load the database file.

Step 2: Click on the **Tables** option in the **Database** pane.

Step 3: Double-click on the table in the **Table** pane

This will open the table in Table Data View.

Method 2: Using the context menu

Step 1: Open the **LibreOffice Base** application and load the database file.

Step 2: Click on the **Tables** option in the **Database** pane.

Step 3: Right-click on the table in the **Table** pane

A context menu appears.

Step 4: Select the **Open** option from the context menu

This will open the table in Table Data View.

6. **Forms**

A form is a feature of a database using which we can enter data in a table in an easy and user-friendly manner. They provide a user-friendly way to facilitate the input, editing, and viewing of data within an RDBMS with the help of graphical elements such as text boxes, drop-down menus, checkboxes, and buttons.

Reports

Reports are formatted presentations of data generated from a database. They take raw data and turn it into a structured, easy-to-understand format. The output of a query may be displayed in the form of reports with data arranged in the form of rows and columns. But if we want the report to be formal and in proper layout, then we can use the Reports feature of RDBMS.

7. The **Forms Control** toolbar contains various controls that can be added to the form. The Forms Control toolbar appears on the left of the Database Form window.

   Some functions of the Form Controls toolbar are as follows:

   - **Select Tool:** Allows you to select and manipulate existing controls on the form.
   - **Label Field:** Adds a text label that is not connected to a database field. Labels are used to provide descriptive text or instructions on a form.
   - **Text Box:** Inserts a field that allows the user to enter or display text. This control can be bound to a database field to display or accept user input.
   - **List Box:** Creates a drop-down list that allows the user to select an option from a list of values. The list can be static or dynamically generated from a database table or query.
   - **Combo Box:** Inserts a combination of a text box and a drop-down list. The user can either enter a value directly or select from a list of predefined options.
   - **Check Box:** Adds a box that can be checked or unchecked by the user, representing a boolean (true/false) value.
   - **Radio Button:** Inserts a button that allows the user to select one option from a set of mutually exclusive choices.

8. Two important types of relationship are:

   - **One-to-Many:** This is one of the most common types of relationship between the tables in a database. In this type "Each record of Master table is related to multiple Records of Transaction table." It is represented as a **1:n** relationship.
   - **Many to Many:** In this relationship, "Multiple records of Master table is related to multiple records of Transaction table". Generally, this type of relationship is set when certain records must be saved more than once in both the related tables. It is represented as a **n:n** relationship.

C. 1. The suggested database objects Ananya should use in her bookshop's database for each of her tasks:

   a. To store the information of the total stock in tabular form: **Table**

   b. To design an interactive screen to enter and display the information: **Form**

   c. To create a report of stock available in her bookshop: **Report**

   d. To create a query based on a criterion: **Query**

2. a. Two Different Ways of Creating a Form in a Table:

      - Use Wizard to Create Form
      - Create Form in Design View

   b. Steps to create a relationship between tables are as follows:

      Step 1: Select the **Tools** → **Relationships** option from the **Menu** bar.

      The **Relation Design** window opens with the **Add Tables** dialog box.

Step 2: Select the table that you want to add in the relationship as **Subject**.

Step 3: Click the **Add** button in the **Add Tables** dialog box.

Similarly, you can add more tables. In this case, we have added the **Teacher** table.

Step 4: Click the **Close** button in the **Add Tables** dialog box.

Step 5: Click on **Subject Code** in **Subject** table and drag it to the **Subject Code** in **Teacher** table. Release the button to see a relationship between tables.

c. Reports are formatted presentations of data generated from a database. They take raw data and turn it into a structured, easy-to-understand format. The output of a query may be displayed in the form of reports with data arranged in the form of rows and columns. But if we want the report to be formal and in proper layout, then we can use the Reports feature of RDBMS.

d. The Use Wizard to Create Report option

3. b. Both A and R are true but R is not the correct explanation of A.
4. a. Both A and R are true and R is the correct explanation of A.
5. c. Statement 1 is TRUE, Statement 2 is FALSE.