

CBSE Class 10, 2026 Information Technology Question Paper with Solutions

Time Allowed :3 Hours

Maximum Marks :80

Total questions :38

General Instructions

Read the following instructions very carefully and strictly follow them:

1. The paper is divided into Section A and Section B.
2. Section A includes objective-type questions.
3. All questions in Section A are compulsory.
4. Section B includes short answer, and long answer type questions.
5. Answers must be written legibly within the word limit.
6. Use of unfair means or electronic devices is prohibited.
7. Follow the correct format and instructions for each section.

Section - A

1(i). Identify the imperative sentence:

- (A) Shut the front door.
- (B) She is a talented artist.
- (C) Are you feeling better?
- (D) You were amazing!

Correct Answer: (A) Shut the front door.

Solution:

Step 1: Understanding imperative sentences.

An imperative sentence gives a command, request, or instruction. It often begins with a verb and typically has an implied subject ("you").

Step 2: Analyzing the options.

- **(A) Shut the front door:** Correct. This is a command, making it an imperative sentence.
- **(B) She is a talented artist:** Incorrect. This is a declarative sentence, stating a fact.
- **(C) Are you feeling better?:** Incorrect. This is an interrogative sentence, asking a question.
- **(D) You were amazing!:** Incorrect. This is an exclamatory sentence, expressing a strong emotion or feeling.

Step 3: Conclusion.

Therefore, the correct answer is (A) Shut the front door, as it is an imperative sentence.

Final Answer: Shut the front door.

Quick Tip

An imperative sentence gives a command, request, or instruction and usually begins with a verb. The subject "you" is often implied.

(ii). Breaking down big goals into smaller parts will make the goals -----

- (A) Specific
- (B) Measurable
- (C) Achievable
- (D) Realistic

Correct Answer: (C) Achievable

Solution:

Step 1: Understanding goal setting.

When setting goals, breaking down large tasks into smaller parts helps in creating achievable steps. This approach makes the overall goal more manageable and less overwhelming.

Step 2: Analysis of the options.

- **(A) Specific:** Incorrect. While breaking goals down does make them clearer, "specific" is not the best fit for the context of making the goal achievable.
- **(B) Measurable:** Incorrect. Measurable goals can be tracked, but breaking them down makes them more achievable, not necessarily more measurable.
- **(C) Achievable:** Correct. Breaking goals down makes them more achievable, as it turns large tasks into smaller, manageable steps.
- **(D) Realistic:** Incorrect. Realistic goals are important, but the question specifically focuses on breaking goals down to make them achievable.

Step 3: Conclusion.

Breaking large goals into smaller parts makes them more achievable, so the correct answer is (C) Achievable.

Final Answer: Achievable.

Quick Tip

To make big goals less overwhelming, break them down into smaller, more achievable tasks that can be accomplished step by step.

(iii) Define the term 'Time Management'.

Solution:

Step 1: Define Time Management.

Time management refers to the process of planning and exercising conscious control over the amount of time spent on specific activities to increase efficiency and productivity. It involves organizing and prioritizing tasks to make the best use of time.

Step 2: Importance of Time Management.

Effective time management helps individuals to focus on essential tasks, meet deadlines, reduce stress, and achieve personal and professional goals. It leads to a balanced and more organized life.

Step 3: Key components of Time Management.

Key components of time management include goal setting, prioritizing tasks, setting deadlines, avoiding procrastination, and using tools such as planners or digital calendars.

Quick Tip

Effective time management helps in boosting productivity and maintaining a balanced lifestyle by focusing on what matters most.

(iv). What should a strong password consist of?

- (A) Only letters
- (B) Numbers and special characters
- (C) Name of a person
- (D) Letters, numbers and special characters

Correct Answer: (D) Letters, numbers and special characters

Solution:

Step 1: Understanding the components of a strong password.

A strong password is typically one that is hard to guess. It should include a combination of letters (both uppercase and lowercase), numbers, and special characters. This mix increases the complexity of the password, making it harder to crack.

Step 2: Analyzing the options.

- **(A) Only letters:** Incorrect. Using only letters makes a password easier to guess and less secure.
- **(B) Numbers and special characters:** Incorrect. While this is a good start, using only numbers and special characters may still be vulnerable without letters.
- **(C) Name of a person:** Incorrect. Using the name of a person makes the password very easy to guess and is not recommended for security.
- **(D) Letters, numbers and special characters:** Correct. This is the best practice for creating a strong password, as it includes a diverse set of characters that increase password strength.

Step 3: Conclusion.

Therefore, the correct answer is (D) Letters, numbers and special characters, as it creates a strong, complex password.

Final Answer: Letters, numbers and special characters.

Quick Tip

For a strong password, use a combination of uppercase and lowercase letters, numbers, and special characters to ensure maximum security.

(v) A misconception about an entrepreneur is:

Entrepreneurs are _____, not _____.

Solution:

Step 1: Understanding the misconception.

A common misconception about entrepreneurs is that they are risk-takers who engage in reckless behavior, constantly pursuing risky ventures without considering consequences.

Step 2: Clarify the reality.

However, successful entrepreneurs are calculated risk-takers, not reckless ones. They analyze risks, make informed decisions, and take strategic actions to minimize risks while maximizing rewards.

Step 3: The importance of calculated risk-taking.

Being a successful entrepreneur does not mean avoiding risks altogether but taking thoughtful, well-planned risks that align with the business goals and vision.

Quick Tip

Successful entrepreneurs embrace risks, but they do so in a calculated and informed manner to ensure sustainable growth.

(vi). Choose the option which is not a Sustainable Development Goal according to the United Nations.

- (A) Population
- (B) No Poverty
- (C) Quality Education
- (D) Reduced Inequalities

Correct Answer: (A) Population

Solution:

Step 1: Understanding Sustainable Development Goals (SDGs).

The United Nations established 17 Sustainable Development Goals (SDGs) to address global challenges, such as poverty, inequality, and environmental degradation. These goals aim to improve life for people everywhere and achieve a better and more sustainable future.

Step 2: Analyzing the options.

- **(A) Population:** Correct. "Population" is not one of the SDGs. However, population-related issues are addressed indirectly within the broader SDGs, such as those focused on poverty, health, and inequality.
- **(B) No Poverty:** Incorrect. "No Poverty" is one of the 17 SDGs, aiming to eradicate extreme poverty by 2030.
- **(C) Quality Education:** Incorrect. "Quality Education" is another SDG, focusing on inclusive and equitable quality education for all.
- **(D) Reduced Inequalities:** Incorrect. "Reduced Inequalities" is also one of the SDGs, targeting the reduction of inequality both within and among countries.

Step 3: Conclusion.

Therefore, the correct answer is (A) Population, as it is not a specific Sustainable Development Goal according to the United Nations.

Final Answer: Population.

Quick Tip

The United Nations has 17 Sustainable Development Goals (SDGs), which aim to address global challenges and create a more sustainable future.

2(i). Ramesh wants to apply a specific paragraph style to multiple non-contiguous sections of his document. Which feature of LibreOffice Writer should he use to avoid manually applying the style each time?

- (A) Update Style
- (B) Fill Format
- (C) Drag and Drop
- (D) Load Styles

Correct Answer: (D) Load Styles

Solution:

Step 1: Understanding the options.

In LibreOffice Writer, applying styles across non-contiguous sections requires a method that allows for easy and consistent formatting. The "Load Styles" feature is designed to apply styles from another document or template, making it ideal for this task.

Step 2: Analyzing the options.

- **(A) Update Style:** Incorrect. Update Style allows you to update the current style, but it does not directly help with applying the style to multiple non-contiguous sections.
- **(B) Fill Format:** Incorrect. Fill Format allows you to copy formatting from one area and apply it to another, but it does not apply styles to multiple sections automatically.
- **(C) Drag and Drop:** Incorrect. Drag and Drop is useful for moving content but is not designed for applying paragraph styles across non-contiguous sections.
- **(D) Load Styles:** Correct. Load Styles allows you to import and apply a specific style from another document or template, making it efficient for applying the same style to non-contiguous sections of the document.

Step 3: Conclusion.

Therefore, the correct answer is (D) Load Styles, as it enables applying the same style to multiple non-contiguous sections.

Final Answer: Load Styles.

Quick Tip

Use the "Load Styles" feature in LibreOffice Writer to efficiently apply a style to multiple non-contiguous sections of your document without having to manually reapply the style each time.

(ii). Breaking down big goals into smaller parts will make the goals -----

- (A) Specific
- (B) Measurable
- (C) Achievable
- (D) Realistic

Correct Answer: (C) Achievable

Solution:

Step 1: Understanding goal setting.

When setting goals, breaking down large tasks into smaller parts helps in creating achievable steps. This approach makes the overall goal more manageable and less overwhelming.

Step 2: Analysis of the options.

- **(A) Specific:** Incorrect. While breaking goals down does make them clearer, "specific" is not the best fit for the context of making the goal achievable.
- **(B) Measurable:** Incorrect. Measurable goals can be tracked, but breaking them down makes them more achievable, not necessarily more measurable.
- **(C) Achievable:** Correct. Breaking goals down makes them more achievable, as it turns large tasks into smaller, manageable steps.

- **(D) Realistic:** Incorrect. Realistic goals are important, but the question specifically focuses on breaking goals down to make them achievable.

Step 3: Conclusion.

Breaking large goals into smaller parts makes them more achievable, so the correct answer is (C) Achievable.

Final Answer: Achievable.

Quick Tip

To make big goals less overwhelming, break them down into smaller, more achievable tasks that can be accomplished step by step.

iii. Which of the following style categories in LibreOffice Writer is used to define layout elements such as margins, headers, and footers?

- (A) Paragraph Style
- (B) Page Style
- (C) Frame Style
- (D) Table Style

Correct Answer: (B) Page Style

Solution:

Step 1: Understanding the different style categories.

In LibreOffice Writer, "Page Style" is used to define layout elements such as margins, headers, footers, and page orientation. It allows users to set up the overall appearance of the pages in the document.

Step 2: Analyzing the options.

- **(A) Paragraph Style:** Incorrect. Paragraph style is used for formatting text within paragraphs, such as font, alignment, and spacing, but it does not affect the layout of the entire page.

- **(B) Page Style:** Correct. Page style controls the overall layout of the page, including margins, headers, footers, and page orientation.
- **(C) Frame Style:** Incorrect. Frame style is used to format objects like text boxes or images within frames, not the overall page layout.
- **(D) Table Style:** Incorrect. Table style is used to format tables and the content inside them, not the page layout.

Step 3: Conclusion.

Therefore, the correct answer is (B) Page Style, as it defines layout elements such as margins, headers, and footers.

Final Answer: Page Style.

Quick Tip

In LibreOffice Writer, use Page Style to adjust the layout of your document, including margins, headers, footers, and other page-related settings.

iv. LibreOffice Writer supports up to levels of headings.

- (A) 9
- (B) 10
- (C) 11
- (D) 12

Correct Answer: (D) 12

Solution:

LibreOffice Writer supports up to 10 levels of headings by default for creating a well-organized document with different levels of headings and subheadings. However, it can support additional levels through customization.

Step 2: Analyzing the options.

- **(A) 9:** Incorrect. LibreOffice Writer supports more than 9 levels of headings by default.

- **(B) 10:** Incorrect. LibreOffice Writer supports up to 10 heading levels by default, but can go beyond with customization.
- **(C) 11:** Incorrect. LibreOffice Writer supports up to 12 levels by default, not 11.
- **(D) 12:** Correct. LibreOffice Writer supports up to 12 levels of headings by default.

Step 3: Conclusion.

Therefore, the correct answer is (D) 12, as LibreOffice Writer supports up to 12 levels of headings by default.

Final Answer: 12.

Quick Tip

In LibreOffice Writer, you can use up to 12 heading levels for organizing and structuring your document efficiently.

v. Which of the following image tools is used to change the image to black and white, grayscale or a watermark?

- (A) Image Crop
- (B) Image Mode
- (C) Image Align
- (D) Image Size

Correct Answer: (B) Image Mode

Solution:

Step 1: Understanding image tools.

”Image Mode” is the tool used to change the color properties of an image, such as converting it to black and white or grayscale, or adding a watermark. It allows users to adjust how the image is displayed.

Step 2: Analyzing the options.

- **(A) Image Crop:** Incorrect. Image Crop is used to trim parts of the image but does not change the color or apply a watermark.
- **(B) Image Mode:** Correct. Image Mode is used for color adjustments, including converting an image to black and white, grayscale, or adding a watermark.
- **(C) Image Align:** Incorrect. Image Align is used to align an image within a document or layout, not for changing the image's color or adding a watermark.
- **(D) Image Size:** Incorrect. Image Size changes the dimensions of the image, but it does not affect color or add a watermark.

Step 3: Conclusion.

Therefore, the correct answer is (B) Image Mode, as it is used to change the image to black and white, grayscale, or add a watermark.

Final Answer: Image Mode.

Quick Tip

Use the "Image Mode" tool to adjust the color settings of an image, including converting it to grayscale or black and white, or adding a watermark.

vi. A _____ is a preset layout that helps to create professional and/or formal documents easily.

- (A) Template
- (B) Style
- (C) ToC
- (D) SoC

Correct Answer: (A) Template

Solution:

Step 1: Understanding the concept of document layout.

A "Template" is a preset document layout that provides a foundation for creating documents with a consistent structure and format. It helps save time and ensures professional and formal document presentation.

Step 2: Analyzing the options.

- **(A) Template:** Correct. A template is a pre-designed document layout that helps you create professional documents quickly by providing a fixed structure.
- **(B) Style:** Incorrect. A style defines the formatting of text and other elements within a document but does not offer a preset layout for the entire document.
- **(C) ToC:** Incorrect. ToC stands for "Table of Contents," which is a list of headings in a document, not a preset layout.
- **(D) SoC:** Incorrect. "SoC" is not a standard term related to document layout in this context.

Step 3: Conclusion.

Therefore, the correct answer is (A) Template, as it provides a preset layout for creating professional and formal documents.

Final Answer: Template.

Quick Tip

Using a template in word processors helps streamline the document creation process by providing a ready-made layout with defined sections, fonts, and formatting.

3(i). Ravi is analysing monthly sales data in Calc. He wants to test how changing the discount rate affects total revenue. Which feature should he use to simulate different outcomes?

- (A) Sort
- (B) Indexing
- (C) What-if Scenarios

(D) Filter

Correct Answer: (C) What-if Scenarios

Solution:

Step 1: Understanding "What-if Scenarios."

In spreadsheet applications like LibreOffice Calc, "What-if Scenarios" is a tool that allows you to model different possible outcomes by changing variables such as the discount rate. This is especially useful for analyzing how changes in one or more input variables impact the final result, such as total revenue.

Step 2: Analyzing the options.

- **(A) Sort:** Incorrect. Sorting data only arranges the data in a specific order, but it does not simulate different outcomes based on changing variables.
- **(B) Indexing:** Incorrect. Indexing is used for referencing data in specific positions, but it does not help in simulating outcomes.
- **(C) What-if Scenarios:** Correct. "What-if Scenarios" in Calc allows Ravi to simulate different outcomes by changing the discount rate and observing the effects on total revenue.
- **(D) Filter:** Incorrect. Filtering helps in viewing specific subsets of data but does not simulate outcomes based on changes in variables.

Step 3: Conclusion.

Therefore, the correct answer is (C) What-if Scenarios, as it allows Ravi to test how changing the discount rate affects total revenue.

Final Answer: What-if Scenarios.

Quick Tip

Use "What-if Scenarios" in spreadsheet applications to test different scenarios by changing key variables and simulating the effects on the outcome.

ii. While reviewing a shared spreadsheet, Priya notices that some cells have been modified, but she's unsure who made the changes. Which feature should she use to identify the editor?

- (A) Data Validation
- (B) Track Changes
- (C) Observe Changes
- (D) AutoFilter

Correct Answer: (B) Track Changes

Solution:

Step 1: Understanding the feature to track edits.

The "Track Changes" feature in spreadsheet applications allows users to track and identify modifications made to the document. It shows who made the changes and what modifications were made, making it easier to review collaborative edits.

Step 2: Analyzing the options.

- **(A) Data Validation:** Incorrect. Data validation restricts the type of data entered into cells, but it does not track changes or identify the editor.
- **(B) Track Changes:** Correct. The "Track Changes" feature enables users to identify who made the changes and which cells were modified.
- **(C) Observe Changes:** Incorrect. "Observe Changes" is not a standard feature in spreadsheet software.
- **(D) AutoFilter:** Incorrect. AutoFilter is used to filter and view subsets of data, but it does not track changes or identify editors.

Step 3: Conclusion.

Therefore, the correct answer is (B) Track Changes, as it helps Priya identify who made the changes in the shared spreadsheet.

Final Answer: Track Changes.

Quick Tip

Use the "Track Changes" feature in spreadsheet applications to identify who made specific changes to a document and what changes were made.

iii. Which of the following is the correct way to record a macro in LibreOffice Calc?

- (A) Tools → Macros → Record Macro
- (B) File → Options → Record Macro
- (C) Insert → Macro → Record
- (D) View → Macros → Record

Correct Answer: (A) Tools → Macros → Record Macro

Solution:

In LibreOffice Calc, the correct way to record a macro is by navigating to the "Tools" menu, selecting "Macros," and then choosing "Record Macro." This option allows you to record a series of actions in the spreadsheet that can later be repeated automatically.

Step 2: Analyzing the options.

- **(A) Tools → Macros → Record Macro:** Correct. This is the correct path to record a macro in LibreOffice Calc.
- **(B) File → Options → Record Macro:** Incorrect. There is no option to record a macro under the "File" and "Options" menus in LibreOffice Calc.
- **(C) Insert → Macro → Record:** Incorrect. This path does not exist in LibreOffice Calc for recording macros.
- **(D) View → Macros → Record:** Incorrect. The "View" menu does not contain the option to record macros in LibreOffice Calc.

Step 3: Conclusion.

Therefore, the correct answer is (A) Tools → Macros → Record Macro, as this is the correct way to record a macro in LibreOffice Calc.

Final Answer: Tools → Macros → Record Macro.

Quick Tip

To record a macro in LibreOffice Calc, go to "Tools" → "Macros" → "Record Macro" and perform the actions you want to automate.

iv. Which one of the following is the default function when a Consolidate dialog box opens in LibreOffice Calc?

- (A) Average
- (B) Sum
- (C) Max
- (D) Var

Correct Answer: (B) Sum

Solution:

In LibreOffice Calc, the "Consolidate" function is used to combine data from different ranges or sheets. The default function for this operation is "Sum," which sums the data from the specified ranges.

Step 2: Analyzing the options.

- **(A) Average:** Incorrect. While average can be used in consolidation, it is not the default function.
- **(B) Sum:** Correct. The default function in the Consolidate dialog box is "Sum," which adds up the values from the selected ranges.
- **(C) Max:** Incorrect. "Max" finds the maximum value in a range, but it is not the default in consolidation.
- **(D) Var:** Incorrect. "Var" calculates variance, but it is not the default function when consolidating data.

Step 3: Conclusion.

Therefore, the correct answer is (B) Sum, as it is the default function when a Consolidate dialog box opens in LibreOffice Calc.

Final Answer: Sum.

Quick Tip

In the "Consolidate" dialog box in LibreOffice Calc, the default function is "Sum," which allows you to combine data by adding the values from multiple ranges.

v. Which Calc feature allows multiple users to suggest edits while preserving the original data?

- (A) Protect Sheet
- (B) Share Document
- (C) Track Changes
- (D) Insert Comments

Correct Answer: (C) Track Changes

Solution:

In LibreOffice Calc, the "Track Changes" feature allows multiple users to suggest edits to a shared document, while preserving the original data. The changes are highlighted, and the document owner can choose to accept or reject them.

Step 2: Analyzing the options.

- **(A) Protect Sheet:** Incorrect. "Protect Sheet" is used to prevent unauthorized edits to a sheet but does not allow tracking or suggesting changes.
- **(B) Share Document:** Incorrect. Sharing a document allows multiple users to access it, but it does not provide the functionality for tracking changes.
- **(C) Track Changes:** Correct. "Track Changes" enables multiple users to suggest edits while preserving the original data. The changes are tracked and highlighted.

- **(D) Insert Comments:** Incorrect. Inserting comments allows users to add notes but does not track or highlight edits made to the data.

Step 3: Conclusion.

Therefore, the correct answer is (C) Track Changes, as it allows multiple users to suggest edits while preserving the original data.

Final Answer: Track Changes.

Quick Tip

Use the "Track Changes" feature in LibreOffice Calc to allow multiple users to suggest edits while keeping the original data intact. You can accept or reject changes as needed.

vi. In Calc, which of the following types of hyperlink uses the complete location where the file to be linked is stored?

- (A) Absolute hyperlink
- (B) Mixed hyperlink
- (C) Relative hyperlink
- (D) Static hyperlink

Correct Answer: (A) Absolute hyperlink

Solution:

In Calc, an "Absolute hyperlink" uses the complete path or location of the file, including the drive letter, directory path, and file name. This type of hyperlink links directly to the file's exact location, regardless of the file's location relative to the document.

Step 2: Analyzing the options.

- **(A) Absolute hyperlink:** Correct. An absolute hyperlink provides the full URL or file path, specifying the exact location of the linked file.
- **(B) Mixed hyperlink:** Incorrect. A mixed hyperlink typically refers to a combination of relative and absolute paths, depending on the situation.

- **(C) Relative hyperlink:** Incorrect. A relative hyperlink uses a file path that is relative to the current document, not the complete path.
- **(D) Static hyperlink:** Incorrect. A static hyperlink refers to a fixed link, but it does not specifically address the file's location.

Step 3: Conclusion.

Therefore, the correct answer is (A) Absolute hyperlink, as it uses the complete location where the file to be linked is stored.

Final Answer: Absolute hyperlink.

Quick Tip

Use an absolute hyperlink when you need to link to a specific file with its full path, ensuring the link works regardless of the document's location.

4(i). In a database, a form is

- (A) a tool used only for storing data in tables
- (B) an object with a user-friendly interface for data entry
- (C) a feature used to write queries
- (D) a chart to display statistical data

Correct Answer: (B) an object with a user-friendly interface for data entry

Solution:

A "form" in a database is a tool used to create an easy-to-use interface for entering, updating, or displaying data. It allows users to interact with the database without directly interacting with the raw data or tables.

Step 2: Analyzing the options.

- **(A) a tool used only for storing data in tables:** Incorrect. This describes tables, not forms.

- **(B) an object with a user-friendly interface for data entry:** Correct. A form is designed to provide a user-friendly interface for entering data into the database.
- **(C) a feature used to write queries:** Incorrect. Queries are written in a query interface, not in a form.
- **(D) a chart to display statistical data:** Incorrect. A chart is used for data visualization, not for data entry.

Step 3: Conclusion.

Therefore, the correct answer is (B) an object with a user-friendly interface for data entry.

Final Answer: an object with a user-friendly interface for data entry.

Quick Tip

In databases, a form provides an easy-to-use interface for entering and managing data without dealing with the underlying tables directly.

(ii). Which of the following is an example of a DBMS?

- (A) Ubuntu
- (B) MySQL
- (C) MS Word
- (D) Canva

Correct Answer: (B) MySQL

Solution:

A DBMS (Database Management System) is software used to store, manage, and organize data in databases. MySQL is a popular relational database management system (RDBMS) used for managing databases.

Step 2: Analyzing the options.

- **(A) Ubuntu:** Incorrect. Ubuntu is an operating system, not a database management system.

- **(B) MySQL:** Correct. MySQL is a widely used DBMS that stores and manages data in relational databases.
- **(C) MS Word:** Incorrect. MS Word is a word processing software, not a DBMS.
- **(D) Canva:** Incorrect. Canva is a graphic design tool, not a database management system.

Step 3: Conclusion.

Therefore, the correct answer is (B) MySQL, as it is a DBMS used to manage databases.

Final Answer: MySQL.

Quick Tip

A DBMS like MySQL helps in storing and managing data in an organized way, providing functionalities like querying, updating, and managing large datasets.

(iii). While forming a relationship between two tables in LibreOffice Base, the _____ of the common field must be _____.

- (A) same, data type
- (B) data type, same
- (C) data type, different
- (D) primary key, same

Correct Answer: (A) same, data type

Solution:

When establishing a relationship between two tables in LibreOffice Base, the common field (also known as the foreign key) must have the same data type in both tables. This ensures the integrity of the relationship and avoids errors.

Step 2: Analyzing the options.

- **(A) same, data type:** Correct. The data type of the common field must be the same in both tables when creating a relationship.

- **(B) data type, same:** Incorrect. The phrase order is incorrect, but the correct concept is the data type must match.
- **(C) data type, different:** Incorrect. The data type must be the same, not different, for the relationship to work.
- **(D) primary key, same:** Incorrect. While the primary key is important, the relationship is formed based on the data type of the common field.

Step 3: Conclusion.

Therefore, the correct answer is (A) same, data type, as the data type of the common field must be the same in both tables when forming a relationship.

Final Answer: same, data type.

Quick Tip

Ensure that the data type of the common field is the same in both tables to maintain referential integrity while forming relationships in LibreOffice Base.

(iv). Which of the following advantages of DBMS ensures that changes in data are reflected across all tables?

- (A) Data Sharing
- (B) Organised Storage
- (C) Data Consistency
- (D) Minimal Data Redundancy

Correct Answer: (C) Data Consistency

Solution:

Data consistency in a Database Management System (DBMS) ensures that when data is updated in one place, the changes are reflected across all related tables. This reduces errors and ensures the integrity of the data.

Step 2: Analyzing the options.

- **(A) Data Sharing:** Incorrect. Data sharing refers to the ability of users to access and use data across different locations, but it does not directly ensure that changes are reflected across all tables.
- **(B) Organised Storage:** Incorrect. Organised storage refers to the structured arrangement of data, but it does not guarantee that changes are automatically updated in all related tables.
- **(C) Data Consistency:** Correct. Data consistency ensures that changes in one part of the database are propagated to all related tables, maintaining the accuracy and integrity of the data.
- **(D) Minimal Data Redundancy:** Incorrect. While minimizing data redundancy is an advantage of a DBMS, it does not directly ensure that changes are reflected across all tables.

Step 3: Conclusion.

Therefore, the correct answer is (C) Data Consistency, as it ensures that changes in data are reflected across all tables.

Final Answer: Data Consistency.

Quick Tip

Data consistency ensures that changes made to the database are reflected consistently across all related tables, maintaining data integrity.

v. Which of the following best explains the use of a query in LibreOffice Base?

- (A) To store data in an organized format
- (B) To retrieve data from the database and display it in the desired format
- (C) To create tables
- (D) To design the layout of forms and reports

Correct Answer: (B) To retrieve data from the database and display it in the desired format

Solution:

A query in LibreOffice Base is used to retrieve specific data from the database and display it in a format that is easy to read and understand. It allows users to filter and organize the data in a way that fits their needs.

Step 2: Analyzing the options.

- **(A) To store data in an organized format:** Incorrect. Storing data in an organized format is done by creating tables, not by using queries.
- **(B) To retrieve data from the database and display it in the desired format:** Correct. This is the primary function of a query in a database, where it fetches specific data based on the user's criteria.
- **(C) To create tables:** Incorrect. Tables are created directly in the database management system, not through queries.
- **(D) To design the layout of forms and reports:** Incorrect. Forms and reports are designed separately and are not the main function of a query.

Step 3: Conclusion.

Therefore, the correct answer is (B) To retrieve data from the database and display it in the desired format.

Final Answer: To retrieve data from the database and display it in the desired format.

Quick Tip

Queries in LibreOffice Base allow you to fetch and display specific data from your database, providing the flexibility to filter and organize the results.

(vi). In _____ Data Model, the data is stored in the form of linked records, organized into a tree-like structure.

- (A) Network
- (B) Relational

- (C) Fictional
- (D) Hierarchical

Correct Answer: (D) Hierarchical

Solution:

In the "Hierarchical" Data Model, the data is structured in a tree-like form, where each record is linked to its parent record. This model organizes data in a hierarchy, similar to a tree structure, where each node represents a record and the links between them represent relationships.

Step 2: Analyzing the options.

- **(A) Network:** Incorrect. The Network Data Model also uses linked records but the structure is not strictly tree-like. It allows more complex relationships between records.
- **(B) Relational:** Incorrect. The Relational Data Model stores data in tables with rows and columns, not in a tree-like structure.
- **(C) Fictional:** Incorrect. "Fictional" is not a standard data model.
- **(D) Hierarchical:** Correct. The Hierarchical Data Model stores data in a tree-like structure with a parent-child relationship between records.

Step 3: Conclusion.

Therefore, the correct answer is (D) Hierarchical, as it describes the data model with a tree-like structure.

Final Answer: Hierarchical.

Quick Tip

In a Hierarchical Data Model, records are stored in a tree-like structure, where each record is linked to a parent and may have child records.

5(i). Arjun notices that his colleague frequently complains of neck pain and sore shoulders after long working hours. Which of the following is the most likely cause?

- (A) Poor lighting and ventilation
- (B) Improper ergonomic setup
- (C) Good lighting and ventilation
- (D) Using updated antivirus software

Correct Answer: (B) Improper ergonomic setup

Solution:

The most likely cause for neck pain and sore shoulders after long working hours is an "Improper ergonomic setup." This includes factors such as incorrect posture, poorly adjusted chairs or desks, and improper screen height, which can lead to muscle strain and discomfort.

Step 2: Analyzing the options.

- **(A) Poor lighting and ventilation:** Incorrect. While poor lighting and ventilation can cause discomfort, they are less likely to lead to neck pain and sore shoulders than an improper ergonomic setup.
- **(B) Improper ergonomic setup:** Correct. An improper ergonomic setup, such as poor posture or improper desk and chair adjustments, is a common cause of neck pain and sore shoulders.
- **(C) Good lighting and ventilation:** Incorrect. Good lighting and ventilation can actually help reduce discomfort, not cause it.
- **(D) Using updated antivirus software:** Incorrect. Antivirus software does not impact physical health or cause neck and shoulder pain.

Step 3: Conclusion.

Therefore, the correct answer is (B) Improper ergonomic setup, as it is the most likely cause of the described symptoms.

Final Answer: Improper ergonomic setup.

Quick Tip

Ensure your workspace is ergonomically designed by adjusting your chair, desk, and screen to maintain proper posture and reduce strain on your neck and shoulders.

(ii). Which of the following types of fire extinguishers should not be used to extinguish an electrical fire?

- (A) Carbon dioxide
- (B) Mechanical foam
- (C) Dry chemical powder
- (D) ABC dry powder

Correct Answer: (B) Mechanical foam

Solution:

For electrical fires, it's crucial to use fire extinguishers that do not conduct electricity. Carbon dioxide, dry chemical powder, and ABC dry powder extinguishers are safe for electrical fires, while mechanical foam should be avoided. Foam-based extinguishers can conduct electricity and increase the risk of electrical shock.

Step 2: Analyzing the options.

- **(A) Carbon dioxide:** Incorrect. Carbon dioxide is safe for electrical fires as it is non-conductive and works by displacing oxygen to suffocate the fire.
- **(B) Mechanical foam:** Correct. Mechanical foam is not suitable for electrical fires because it may conduct electricity and cause more damage.
- **(C) Dry chemical powder:** Incorrect. Dry chemical powder is safe for electrical fires and is widely used to put out such fires.
- **(D) ABC dry powder:** Incorrect. ABC dry powder is effective and safe for electrical fires, as it works by interrupting the chemical reaction of the fire.

Step 3: Conclusion.

Therefore, the correct answer is (B) Mechanical foam, as it should not be used on electrical fires due to its conductivity.

Final Answer: Mechanical foam.

Quick Tip

For electrical fires, use non-conductive fire extinguishers like carbon dioxide or dry powder. Avoid using foam-based extinguishers.

(iii). Which of the following is the correct typing posture?

- (A) Fingers should be above the home position (asdf and jkl; keys) on the keyboard, when your elbows are by your sides
- (B) Fingers below the spacebar and elbows extended outward
- (C) Keeping the wrist floating in the air
- (D) Leaning back while typing

Correct Answer: (A) Fingers should be above the home position (asdf and jkl; keys) on the keyboard, when your elbows are by your sides

Solution:

The correct typing posture involves placing your fingers on the home position (the "asdf" and "jkl;" keys) while keeping your elbows relaxed by your sides. This helps maintain proper hand and wrist alignment, reducing strain during typing.

Step 2: Analyzing the options.

- **(A) Fingers should be above the home position (asdf and jkl; keys) on the keyboard, when your elbows are by your sides:** Correct. This position helps to maintain good ergonomic posture while typing.
- **(B) Fingers below the spacebar and elbows extended outward:** Incorrect. Extending the elbows outward can cause strain and is not an ideal typing posture.
- **(C) Keeping the wrist floating in the air:** Incorrect. Floating the wrist causes strain on the wrist and should be avoided. The wrists should be kept relaxed and not raised.
- **(D) Leaning back while typing:** Incorrect. Leaning back while typing can lead to poor posture and discomfort. The correct posture involves sitting upright with the hands positioned on the keyboard.

Step 3: Conclusion.

Therefore, the correct answer is (A) Fingers should be above the home position, as it promotes good ergonomic posture for typing.

Final Answer: Fingers should be above the home position (asdf and jkl; keys) on the keyboard, when your elbows are by your sides.

Quick Tip

Maintain a proper typing posture by keeping your fingers on the home position and your elbows relaxed by your sides to prevent strain and improve typing efficiency.

Section - B

6. Mr. Prasanna, a General Manager in a multinational company, has been given two spreadsheets: an original billing file Bill.ods and a reviewed version of the same spreadsheet Rev Bill.ods. Both contain customer billing details prepared by different teams. Write the steps he should follow to compare these worksheets and identify the differences between them.

Solution:

Step 1: Open the Spreadsheets.

Mr. Prasanna should open both the original spreadsheet, Bill.ods, and the reviewed version, Rev Bill.ods, in a compatible spreadsheet application such as LibreOffice Calc or Microsoft Excel.

Step 2: Use Comparison Features.

Many spreadsheet applications offer built-in comparison tools. Mr. Prasanna can use the "Compare" feature (if available) to directly identify differences between two spreadsheets. In Excel, the "Inquire" add-in can be used for this purpose.

Step 3: Manually Compare Key Sections.

If no comparison tool is available, Mr. Prasanna can manually compare key sections such as columns with customer IDs, billing amounts, or other critical data. He can sort the data in both sheets to highlight discrepancies.

Step 4: Look for Formula Discrepancies.

He should also check if there are any formula differences in the cells that might be affecting the billing totals. These discrepancies are often the cause of differences between sheets.

Step 5: Highlight Differences.

To make the differences more visible, Mr. Prasanna can highlight or color-code the cells in both spreadsheets that contain discrepancies, allowing for easier identification.

Quick Tip

For complex comparisons, use specialized spreadsheet tools like Excel's "Inquire" add-in or third-party comparison tools to save time and ensure accuracy.

7(a). What is the purpose of using reports in DBMS?

Solution:

Step 1: Understand the role of reports in DBMS.

Reports in a DBMS are used to present data in a readable and meaningful format, often for printing, analysis, or decision-making.

Step 2: Describe their utility.

Reports help in summarizing large datasets, making it easier to extract insights, share results with stakeholders, and present the data in an organized manner.

Quick Tip

Reports in DBMS are vital for presenting data clearly, helping in analysis, decision-making, and communication of results.

(b) Can we generate a report from multiple tables in a database?

Solution:

Step 1: Explain the possibility.

Yes, it is possible to generate a report from multiple tables in a database.

Step 2: How to generate such a report.

Reports can be generated using SQL queries that involve JOIN operations to combine data from multiple tables. These queries retrieve and display data in a unified format.

Quick Tip

Using JOINS in SQL allows you to combine data from multiple tables to generate comprehensive reports in DBMS.

(c) What is a dynamic report?

Solution:

Step 1: Define a dynamic report.

A dynamic report is a report whose data is not static but can be updated in real-time based on user inputs or changing data in the database.

Step 2: Highlight the features.

Dynamic reports allow users to interact with the data, filter results, and make changes that are reflected instantly, providing a flexible and up-to-date overview.

Quick Tip

Dynamic reports are interactive and allow users to view real-time data, making them ideal for ongoing analysis.

(d) In LibreOffice Base, to insert the current date and time in a report, the steps to be followed are:

Step 1: Click inside the Page Header area to activate it.

Step 2: Click _____.

However, the correct menu item and option names are missing. Identify the correct menu item and option name needed to complete this task.

Solution:

Step 1: Identify the correct menu item.

In LibreOffice Base, after clicking inside the Page Header area, you need to go to the "Insert" menu and select the "Field" option.

Step 2: Correct option name for date and time.

Once the "Field" option is selected, click on "Date" or "Time" under the "Field" submenu to insert the current date and time into the report.

Step 3: Final steps.

This action will insert the current date and time into the Page Header area, automatically updating it each time the report is opened or printed.

Quick Tip

To insert dynamic information like the current date and time in LibreOffice, always use the "Insert" menu and select the appropriate "Field" options for date or time.

8(a). Mention any two health hazards caused by a high contrast between the computer screen and its surroundings.

Solution:

Health Hazard 1: Eye Strain.

A high contrast between the computer screen and its surroundings can lead to eye strain. The eyes have to constantly adjust to the stark differences in brightness, causing fatigue and discomfort.

Health Hazard 2: Headaches.

Continuous exposure to high contrast screens can result in headaches due to the eyes working harder to focus and adjust to the fluctuating light levels, leading to tension and discomfort.

Quick Tip

To avoid eye strain and headaches, ensure a balanced contrast between the screen and surrounding environment by adjusting screen brightness and ambient lighting.

(b) Suggest one way to avoid contrast problems caused by bright light sources behind the display screen.

Solution:

Solution:

One way to avoid contrast problems caused by bright light sources behind the display screen is to adjust the position of the screen so that it is not directly facing any bright light source. Additionally, using anti-glare filters or adjusting the brightness and contrast settings on the screen can help reduce the impact of the light.

Quick Tip

Position your screen in a way that minimizes direct light exposure from windows or lamps, and use screen filters or adjust settings to improve visual comfort.

(c) How can poor sitting posture while using a computer, affect a person's health?

Solution:

Step 1: Explain the impact of poor posture.

Poor sitting posture while using a computer can cause various health issues such as back pain, neck strain, and shoulder discomfort.

Step 2: Elaborate on the specific effects.

Sitting with improper posture for long periods can lead to musculoskeletal problems, decreased blood circulation, and even long-term spinal misalignment.

Step 3: Suggest prevention.

Maintaining an ergonomic chair, keeping the screen at eye level, and taking regular breaks can prevent these issues.

Quick Tip

Maintaining good posture while using a computer can significantly reduce the risk of back and neck pain.

(d) Mention any one way to reduce stress at the workplace.

Solution:

Step 1: Identify a stress-reducing technique.

One effective way to reduce stress at the workplace is practicing mindfulness or deep breathing exercises.

Step 2: Explain the technique.

Mindfulness involves staying present and focused on the task at hand, while deep breathing exercises help in calming the nervous system and reducing anxiety.

Step 3: Suggest benefits.

These techniques can improve concentration, reduce stress levels, and enhance overall well-being in a workplace environment.

Quick Tip

Mindfulness and deep breathing are effective stress-relief methods that can help improve focus and well-being.