

CBSE BOARD EXAMINATION – 2025

INFORMATION TECHNOLOGY

Solved Paper

Class– 10th

Maximum Marks: 50

Time allowed: 2 hours

GENERAL INSTRUCTIONS:

- (i) Please read the instructions carefully.
- (ii) This question paper consists of 21 questions in two Sections: Section A and Section B.
- (iii) Section A has Objective type questions, whereas Section B contains Subjective type questions.
- (iv) Out of the given (5 + 16) = 21 questions, a candidate has to answer (5+10) = 15 questions in the allotted (maximum) time of 2 hours.
- (v) All questions of a particular section must be attempted in the correct order.
- (vi) **Section A: Objective Type Questions (24 marks):**
 - (a) This section has 5 questions.
 - (b) There is no negative marking.
 - (c) Do as per the instructions given.
 - (d) Marks allotted are mentioned against each question/part.
- (vii) **Section B: Subjective Type Questions (26 marks):**
 - (a) This section has 16 questions.
 - (b) A candidate has to do 10 questions.
 - (c) Do as per the instructions given.
 - (d) Marks allotted are mentioned against each question/part.

SECTION– A

(Objective Type Questions)

(24 marks)

1. Answer any 4 out of the given 6 questions on Employability Skills. $4 \times 1 = 4$
- (i) The school is organizing a Career Counselling Workshop. Which of the following will be the most effective method of communication to inform all students of the school?
 - (A) Face-to-face informal communication
 - (B) Notice/Poster/
 - (C) Phone call
 - (D) Meet everyone in person
- (ii) Which of the following is the most suitable term for the ability to regulate one's own emotions and help others also to do the same?
 - (A) Managing emotions
 - (B) Harnessing emotions
 - (C) Knowing emotions
 - (D) Suppressing emotions
- (iii) Roshin studies in class X and is practising hard with a lot of sample papers to get good marks in her exams. She gets up early in the morning to study and completes her revision work. This is an example of
 - (A) Self-awareness
 - (B) Self-motivation/

(C) Influential motivation

(D) Emotional intelligence

- (iv) A _____ is a location where a group of files can be stored in the computer.

(A) Folder (B) SMPS

(C) CMOS (D) UPS

- (v) Which of the following is a myth about entrepreneurs?

(A) An entrepreneur should be confident and should be able to take decisions.

(B) Every business idea must be unique or special.

(C) An entrepreneur should keep trying new ideas.

(D) An entrepreneur should be creative and should have different solutions to the problem.

- (vi) Which one of the following is the most important factor for sustainable development and helps us become aware of our role as a responsible citizen ?

(A) Sports (B) Education

(C) Business (D) Illiteracy

2. Answer any 5 out of the given 6 questions. $5 \times 1 = 5$

- (i) Ravi has to prepare a project report. He wants to save certain formatting features and then apply them on the project report. He can use the feature of OpenOffice Writer.

(A) Styles (B) Image

(C) Mail Merge (D) Preview

- (ii) During a recent excursion, Roshni has taken some pictures for making a report in Writer. She wants to increase the contrast of the images. Which one of the

- following image filters should she use in Writer?
- (A) Aging (B) Mosnic
(C) Sharpen (D) Smooth
- (iii) Which one of the following image arrangement options in Writer sends the drawing object behind the text?
(A) To background (B) To foreground
(C) Behind the text (D) Back one
- (iv) _____ feature of Writer is based on different types of heading styles and is used to give the listing of the contents of the document.
(A) Table of Heading
(B) Index
(C) Label of Contents
(D) Table of Contents
- (v) _____ is the default template for the files being created in Writer.
(A) Resume template (B) Project Report
(C) Blank document (D) Chapter
- (vi) Shanta is creating a project report in Writer and wants to apply the same style on headings / titles in the entire document as she has done at the beginning of the document. She can use the feature of Writer to apply the same format on each line word, wherever needed.
(A) Fill Style (B) Fill Format
(C) Apply Feature (D) Apply Character
- 3. Answer any 5 out of the given 6 questions. 5x1=5**
- (i) To add your own comments in Calc, select _____ → Track changes → Comment.
(A) File (B) Edit
(C) Insert (D) Data
- (ii) To add a new sheet in the spreadsheet, click on the _____ sign located at the left bottom of the spreadsheet.
(A) * (B) /
(C) % (D) +
- (iii) _____ is a set of values that can be used within the calculations in the spreadsheet to explore and compare various alternatives depending on changing conditions.
(A) Sort (B) Filter
(C) What-if Scenarios (D) Comments
- (iv) The recorded macros are actually stored as
(A) a set of instructions in a programming language.
(B) a sequence of data cells
(C) a document
(D) a list of values
- (v) Which creating a hyperlink in calc, if the complete path along with filename is given then it is an example of.
(A) Relative hyperlink
(B) Mixed hyperlink.
(C) Absolute hyperlink
(D) Folder hyperlink
- (vi) This tool in Calc allows you to create a group of cells automatically and apply common functions like sum, average on the grouped data. It is known as _____ tool.
(A) Sum (B) Subtotal
(C) Function (D) Common
- 4. Answer any 5 out of the given 6 questions. 5x1=5**
- (i) _____ is the database software that is used to create, manipulate and manage data.
(A) Ingress (B) Writer
(C) Paint (D) Windows
- (ii) The process of arranging data in ascending or descending order is known as _____.
(A) Filtering (B) Tracking
(C) Purification (D) Sorting
- (iii) With reference to LibreOffice Base, which of the following is a valid data type to indicate the monetary values?
(A) Money (B) Currency
(C) Rupee (D) Dollar
- (iv) Data can be retrieved and displayed from one or more tables in a DBMS using a _____.
(A) Referential integrity
(B) Domain
(C) Query
(D) Field
- (v) While designing a form, it is suggested to get the date input by adding the _____ to the date field to prevent entering invalid dates.
(A) Calendar (B) Text input
(C) Timer (D) Number input
- (vi) While designing a form, titles, headings or sub-headings may be added using _____ tool available on the Form Controls tool box.
(A) Textbox (B) Label
(C) Title (D) Heading
- 5. Answer any 5 out of the given 6 questions. 5x1=5**
- (i) _____ is a state of physical, mental and social well-being.
(A) Richness (B) Popularity
(C) Health (D) Activity
- (ii) Which one of the following is a class B ignition material?
(A) Paper
(B) Gas
(C) Electrical equipment
(D) Potassium
- (iii) The _____ has prepared the policy to provide employees with a healthy and safe work environment.
(A) GoIT (B) DoIT
(C) ToIT (D) SoIT

- (iv) RSI stands for:
- (A) Recurring Syndrome Injury
 (B) Repetition Symptom Injury
 (C) Recessive Stress Injury
 (D) Repetitive Strain Injury
- (v) _____ is the science that deals with designing and arranging the things at workplace so that people can use them easily and safely.
- (A) Health science (B) Ergonomics
 (C) Fixture science (D) Work Economics
- (vi) Which one of the following is a wrong safety guideline?
- (A) Store all cleaning chemicals in tightly closed containers in separate cupboards.
 (B) Never distract the attention of people who are working near a fire or with some machinery, tools or equipment.
 (C) Wear loose clothing or jewellery while working with machines.
 (D) Make sure all areas have proper lighting.

SECTION– B

(Subjective Type Questions)

(26 marks)

Answer any 3 out of the given 5 questions on Employability Skills in 20-30 words each. $3 \times 2 = 6$

- Briefly explain the meaning of any 2 C's out of the 7 C's of effective communication.
- What is Stress management?
- Give any four tips to keep the computer in perfect working condition.
- Mention any four main functions of an entrepreneur.
- Explain any two problems related to sustainable development.

Answer any 4 out of the given 6 questions in 20-30 words each. $4 \times 2 = 8$

- Out of various style categories provided by Writer, briefly explain Frame style category in brief.
- What is a Macro? Give any two rules that should be followed while naming a Macro or module in Calc.
- What is the main purpose of Goal Seek in Calc? Give an example to support your answer.
- What are the important prerequisites for setting a relationship between two tables in LibreOffice Base? Mention any two.
- For a computer workplace, give any two health and safety requirements while using a keyboard.
- Excessive use of computers might have a bad impact on your vision. Give any two eye-related problems that might arise due to long hours spent on a computer.

Answer any 3 out of the given 5 questions in 50-80 words each. $3 \times 4 = 12$

- (a) What is the benefit of grouping drawing objects

in Writer?

- (b) Differentiate between text wrapping and image alignment feature in Writer.

18. Mr. Amit, Sales Manager of ABC Sales Corporation has created a spreadsheet in LibreOffice Calc that lists Sales for different years in different regions in different worksheets. He wants to summarize and make certain decisions based on it.

Help him by answering the following questions:

- Which tool in Calc can be used to combine the sales data from multiple sheets into a single summary sheet?
 - Name the Menu Option and Sub-Menu Option that can be used to generate combined summary of all the worksheets.
 - Name the function that can be used to display total of all sales.
 - He wants to open a summary document stored at a different location from within the sheet by clicking on a text stored in a cell. How can it be done?
19. Imagine that you have been signed a contract of handling fire safety and emergency in a company. You need to spread awareness on fire safety and emergency handling to the employees.

Answer the following questions:

- Give any two fire prevention measures at the workplace.
 - Give any two basic emergency handling procedures at the workplace.
20. (a) Give any two advantages of relating two tables in a database.
 (b) Explain many-to-many relationship between the tables in a database.
21. Consider the following table:

Table: Student

Student_ID	Name	Age	Phone Number
S001	Amit	15	9876543210
S002	Priya	16	8765432109
S003	Priya	15	7654321098

Answer the following questions:

- You are given the task to design the student database for your school in LibreOffice Base. Based on the given table structure, suggest the datatype of student id and age field that would be suitable to store student's-id and age respectively.
- As a database administrator, you need to ensure each student has a unique identifier. Which field in the table would you choose as the primary key and why?
- Identify the field that can serve as an alternate key. Justify your answer.
- How many attributes and records are present in the above shown table?

ANSWERS

SECTION– A

(Objective Type Questions) (20 × 1 = 20)

1. (i) Option (B) is correct.
Explanation: A notice or poster can reach all students simultaneously and can be displayed in prominent locations, ensuring maximum visibility. It is a formal and widely accessible communication method that provides clear details and can be referred to at any time.
 - (ii) Option (A) is correct.
Explanation: Managing emotions refers to the ability to control one's own emotions and help others regulate theirs, which is a key aspect of emotional intelligence. It involves staying calm, understanding feelings and effectively addressing emotional challenges.
 - (iii) Option (B) is correct.
Explanation: Roshin's practice of studying hard and completing sample papers demonstrates intrinsic motivation. Self-motivation involves setting personal goals and persevering to achieve them.
 - (iv) Option (A) is correct.
Explanation: A folder in a computer organises files, making them easier to find and manage. It is the equivalent of a physical file cabinet for digital data.
 - (v) Option (B) is correct.
Explanation: Entrepreneurs often succeed by improving existing ideas or solving common problems in a new way. The myth is that every idea must be groundbreaking to achieve success.
 - (vi) Option (B) is correct.
Explanation: Education raises awareness of environmental, social and economic issues, equipping individuals with the knowledge to make responsible decisions for a sustainable future.
2. (i) Option (A) is correct.
Explanation: Styles in OpenOffice Writer allow you to save and apply consistent formatting across the entire document, ensuring that headings, fonts and other formatting are applied uniformly without the need for manually adjusting each section.
 - (ii) Option (C) is correct.
Explanation: The Sharpen filter enhances the clarity of the image and increases the contrast between different elements within the picture, making it more vivid.
 - (iii) Option (C) is correct.
Explanation: Using the "Behind the text" option allows the image or drawing object to be positioned behind the text, enabling the text to flow over it without obstruction.
 - (iv) Option (D) is correct.
Explanation: The 'Table of Contents' feature in Writer is based on heading styles and automatically generates a list of the document's headings and subheadings for easier navigation.
 - (v) Option (C) is correct.
Explanation: When you open Writer, the default option is a blank document, allowing users to start a new project without any pre-designed template.
 - (vi) Option (B) is correct.
Explanation: The 'Fill Format' tool allows Shanta to copy the formatting of one section (such as a heading) and apply it throughout the document to maintain consistency.
3. (i) Option (B) is correct.
Explanation: To add comments in Calc, you need to go to the Edit menu, select Track Changes, and then click on Comment. This allows you to add notes or comments to individual cells in the spreadsheet, helping in collaboration or annotation of data.
 - (ii) Option (D) is correct.
Explanation: To add a new sheet, click the "+" sign located at the bottom of the spreadsheet. This will create a new tab where you can enter data or perform calculations. It is a simple way to expand your workbook by adding multiple sheets.
 - (iii) Option (C) is correct.
Explanation: What-if Scenarios in Calc allow you to test and compare different sets of values by adjusting input variables and observing how these changes affect the results. This is useful for making data-driven decisions based on changing conditions in calculations.
 - (iv) Option (A) is correct.
Explanation: Recorded macros in Calc are stored as a set of instructions written in a programming language like Basic or LibreOffice Basic. These instructions automate repetitive tasks or operations in the spreadsheet.
 - (v) Option (C) is correct.
Explanation: An absolute hyperlink refers to a link that includes the complete path and filename, making it independent of the document's location. It always points to the same location, regardless of where the document is opened.
 - (vi) Option (B) is correct.
Explanation: The Subtotal tool in Calc allows you to automatically group data based on certain criteria (such as categories) and apply functions like SUM or AVERAGE to the grouped data. This helps in

efficiently summarising large datasets.

4. (i) Option (A) is correct.

Explanation: Ingress is a database management system used for storing and manipulating data. It allows users to create databases, and tables as well as perform queries to manage information.

- (ii) Option (D) is correct.

Explanation: Sorting organises data in a specified order, either ascending (from smallest to largest) or descending (from largest to smallest), making it easier to analyse and find information.

- (iii) Option (B) is correct.

Explanation: The Currency data type is used to store monetary values, ensuring proper formatting for financial calculations and ensuring accuracy in money-related data.

- (iv) Option (C) is correct.

Explanation: A query allows users to retrieve, filter and display data from one or more tables in a database, enabling complex data manipulation and retrieval based on specified conditions.

- (v) Option (A) is correct.

Explanation: The Calendar tool helps users select a date in the proper format, reducing errors by preventing invalid date entries, and ensuring accurate date selection.

- (vi) Option (B) is correct.

Explanation: The Label tool in the Form Controls toolbox is used to add titles, headings, or descriptive text to a form, helping to organise and clarify its sections.

5. (i) Option (C) is correct.

Explanation: Health is defined as a state of complete physical, mental and social well-being. It is not merely the absence of disease but also the presence of positive mental and social conditions.

- (ii) Option (B) is correct.

Explanation: Class B fires involve flammable liquids and gases, such as gasoline, oil and propane.

- (iii) Option (B) is correct.

Explanation: DoIT (Department of Information Technology) is responsible for preparing policies and regulations that ensure a safe and healthy work environment for employees, especially in tech-related fields.

- (iv) Option (D) is correct.

Explanation: RSI stands for Repetitive Strain Injury, which refers to injuries caused by repetitive motion or strain, typically affecting the hands, wrists, or forearms, often resulting from prolonged tasks such as typing or using machinery.

- (v) Option (B) is correct.

Explanation: Ergonomics is the science that focuses on designing and arranging workplace tools,

equipment and tasks to fit the physical needs of workers, ensuring ease of use and safety while minimising strain and injury.

- (vi) Option (C) is correct.

Explanation: Wearing loose clothing or jewellery around machines is dangerous, as they can get caught in moving parts, leading to serious injuries. Safety guidelines emphasise wearing fitted clothing and avoiding jewellery when operating machinery.

SECTION- B

(Subjective Type Questions)

(26 marks)

6. **Two C's of Effective Communication:**

Clarity: Clear communication ensures that the message is simple, direct and easy to understand, eliminating confusion or ambiguity.

Conciseness: Being concise means conveying the message in the fewest words necessary, avoiding unnecessary details and distractions.

Concreteness: Provide specific details and examples to make your message more tangible.

Use facts, data and illustrations where appropriate.

Correctness: Use proper grammar, spelling and accurate facts. Ensure your message aligns with established rules and conventions, and that any statistics or references are valid.

Coherence: Organise your message in a logical structure. Each part of your communication should flow naturally into the next.

Completeness: Provide all necessary information so that the audience knows exactly what is required or what to do next. Anticipate potential questions and address them in your message.

Courtesy: Show respect for the audience by adopting a polite and considerate tone. Tailor your message to the audience's needs, feelings and perspectives.

Note: You can write any of two C's.

7. Stress management involves techniques and practices to reduce or control stress, such as relaxation exercises, time management, regular physical activity and seeking social or professional support.

8. **Four Tips to Keep the Computer in Perfect Working Condition:**

- Regularly update the software and antivirus.
- Clean hardware components, such as the keyboard and screen regularly.
- Backup important files frequently to prevent data loss.
- Defragment the hard drive periodically and run disk cleanup.

9. **Four Main Functions of an Entrepreneur:**

- **Innovation:** Innovation by creating new products or services.

- **Risk-taking:** Taking risks to start and grow the business.
 - **Resource Management:** Managing resources effectively.
 - **Decision-making:** Making critical decisions for business success.
- 10. Two Problems Related to Sustainable Development:**
- Environmental Degradation:** Overexploitation of natural resources leads to pollution, deforestation and loss of biodiversity, harming ecosystems and threatening future sustainability.
- Social Inequality:** Unequal access to resources, education and economic opportunities hampers overall social development, limiting progress for marginalized communities.
- 11.** The Frame style in Writer is used to create frames that can hold and position elements like images, text boxes, or tables within a document. Frames allow independent formatting and movement of content, offering flexibility in layout design.
- 12.** A 'Macro' is a sequence of commands or instructions stored to automate repetitive tasks in applications like Calc.
- Two rules for naming a macro/module:**
- i. The name must start with a letter and can include numbers or underscores.
 - ii. The name should not contain spaces or special characters like punctuation marks.
- 13.** The Goal Seek feature in Calc is used to determine the input value needed to achieve a specific result in a formula.
- Example:** If you want to determine the required sales amount to reach a target profit, Goal Seek will find the exact sales figure needed.
- 14.** To set a relationship between two tables in LibreOffice Base, the following prerequisites are needed:
- i. Both tables should have a common field that links them, such as an ID.
 - ii. The common field must have the same data type in both tables to ensure data consistency and compatibility.
- 15. Health and Safety Requirements for Keyboard Use:**
- i. The keyboard should be positioned at a comfortable height, ensuring wrists are not strained and hands remain in a neutral position to avoid repetitive stress injuries.
 - ii. Breaks should be taken regularly to reduce eye strain, wrist pain and muscle fatigue, promoting better overall health.
- 16. Eye-related Problems from Excessive Computer Use:**
- Eye Strain:** Prolonged screen use can lead to discomfort, dryness and blurred vision, commonly referred to as Digital Eye Strain.

Computer Vision Syndrome (CVS): Symptoms include headaches, neck pain, dry eyes and difficulty focusing due to extended screen time without proper breaks or eye care.

- 17. (a)** Grouping drawing objects in Writer allows multiple shapes, lines, or images to be treated as a single unit. This enables easier manipulation to resize, move, or align them simultaneously, which helps maintain the layout and prevents misalignment while editing the document.
- (b) Difference Between Text Wrapping and Image Alignment in Writer:**

Text wrapping	Image alignment
Text wrapping controls how text flows around an image or drawing object. You can choose from options like "In front of text," "Behind text," or "Through."	Image alignment refers to positioning the image relative to the text, such as left, centre, or right alignment within a document.

- 18. (a)** The Consolidate tool in Calc can be used to combine sales data from multiple sheets into a single summary sheet, helping in data analysis and decision-making.
- (b)** The Data menu option and the Consolidate sub-menu option can be used to generate a combined summary of all worksheets in Calc.
- (c)** The SUM function can be used to display the total sales by adding up values across multiple sheets and cells.
- (d)** He can create a Hyperlink in a cell by using Insert → Hyperlink, allowing him to open the summary document stored at a different location by clicking on the linked text.
- 19. (a) Fire Prevention Measures:**
- i. **Regular Maintenance:** Ensure all electrical equipment is inspected and maintained to prevent overheating or short circuits that may lead to fires.
 - ii. **Proper Storage:** Store flammable materials, such as chemicals and papers, in designated, well-ventilated areas, away from heat sources, to reduce the risk of fire.
- (b) Emergency Handling Procedures:**
- i. **Evacuation Plan:** Establish and regularly practice an evacuation plan that includes clear exit routes, assembly points and instructions for everyone to follow during an emergency.
 - ii. **First Aid and Medical Assistance:** Train employees in basic first aid and ensure access to first aid kits and medical assistance for any injuries or emergencies that may arise.
- 20. (a) Two Advantages of Relating Two Tables in a Database:**
- i. **Data Integrity:** Relating tables ensures consistency and avoids redundant data, making it easier to maintain accurate records.

ii. **Efficient Queries:** By linking related tables, it becomes simpler to perform complex queries and extract meaningful insights, improving data retrieval efficiency.

(b) A many-to-many relationship occurs when multiple records in one table are associated with multiple records in another table. For example, in a database with "Students" and "Courses", a student can enrol in multiple courses, and each course can have multiple students. This relationship is managed through a junction table.

21. (a) **Suitable Datatypes for Fields:**

Student_ID: Text (VARCHAR) - Since it contains alphanumeric characters (e.g., "S001") and requires variable-length storage.

Age: Integer (INT), as age is a numeric value and fits well with integer data type.

(b) The Student_ID field should be chosen as the primary key because it uniquely identifies each student in the database. Even though names might be similar, the Student_ID will always be distinct, ensuring each record is unique.

(c) The Phone_Number field can serve as an alternate key because, phone numbers are unique to individuals, and they could also uniquely identify a student if needed. However, Student_ID is the primary key in this case.

(d) **Attributes:** There are four attributes or fields in the table: Student_ID, Name, Age, Phone_Number.

Records: There are three records or rows in the table, corresponding to three students (S001, S002, S003).



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