



## Information Technology (Subject Code 402)

### CBSE | Department of Skill Education Sample Question Paper Class X (Session 2022-2023)

Maximum Marks: 50

Time Allowed: 02 Hours

#### General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of 21 questions in two sections: Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. 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.
5. All questions of a particular section must be attempted in the correct order.
6. SECTION A - OBJECTIVE TYPE QUESTIONS (24 MARKS):
  - This section has 05 questions.
  - Marks allotted are mentioned against each question/part.
  - There is no negative marking.
  - Do as per the instructions given.
7. SECTION B – SUBJECTIVE TYPE QUESTIONS (26 MARKS):
  - This section has 16 questions.
  - A candidate has to do 10 questions.
  - Do as per the instructions given.
  - Marks allotted are mentioned against each question/part.

#### Section A: Objective Type Questions

Q1.	Answer any 4 out of the given 6 questions on Employability Skills	(1 x 4 = 4 marks)
i.	..... can be understood as a reaction that people have toward excessive pressures triggered by the demand placed upon them. a. Stress b. Confidence c. Motivation d. Self-analysis	
Ans.	a. Stress	

ii.	The ..... allows you to retrieve a deleted file. a. Recycle Bin b. File explorer c. Folder d. Operating system
Ans.	a. Recycle Bin
iii.	Planning, organizing, and staffing is the ..... function of Entrepreneurs. a. Entrepreneurial b. Managerial c. Commercial d. Promotional
Ans.	b. Managerial
iv.	..... is an understanding of knowing our internal qualities, abilities, strengths, and weaknesses. a. Self-analysis b. Self-motivation c. Self-regulation d. Self-management
Ans.	a. Self-analysis
v.	..... is the process of ensuring the safety of data from unauthorised users. a. Cyber safety b. Malware c. Data security d. Firewall
Ans.	c. Data security
vi.	Which of the following is a myth about entrepreneurship? a. Entrepreneurs are Born, not Made b. Every Business Needs a Unique Idea c. Starting a Business Leads to Quick Wealth Creation d. All of these
Ans.	d. All of these

<b>Q2.</b>	<b>Answer any 5 out of the given 6 questions</b> <span style="float: right;"><b>(1 x 5 = 5 marks)</b></span>
i.	State whether True or False “Data consolidation refers to the process of collecting data from a source, summarizing the data, and extracting useful information from it.” a. True b. False
Ans.	b. False

ii.	Identify the features of Writer that displays the relevant text or content in a tabular form in the order in which the text or content appears in the document. a. Mail Merge b. Style c. Formatting d. Table of Content
Ans.	d. Table of Content
iii.	Identify the term that is a Web document and can include text, graphics, images, audio/video, and dynamic links to related files and documents on the Internet. a. Bookmarks/Favorites b. Hypertext Transfer Protocol c. Hypertext d. Cache
Ans.	c. Hypertext
iv.	You can reference a cell from one sheet to another within a spreadsheet by which of the following format? a. ='SheetNumber'.CellAddress b. = CellNumber.'SheetName' c. ='SheetName'.CellAddress d. = CellAddress, 'SheetName'
Ans.	c. ='SheetName'.CellAddress
v.	..... is a website or part of a website containing the thoughts and ideas of a user. a. Blog b. Webpage c. Favorites d. Instant messaging
Ans.	a. Blog
vi.	DBA can run the query by pressing the ..... key in Base. a. F2 b. F3 c. F5 d. F8
Ans.	c. F5

<b>Q3.</b>	<b>Answer any 5 out of the given 6 questions</b>	<b>(1 x 5 = 5 marks)</b>
i.	In OpenOffice Writer, ..... refers to the set of text and page formatting attribute, such as font, font size, bold, underline, and text colour, page margin, size, and orientation. a. Template b. Style c. Formatting d. Theme	
Ans.	b. Style	
ii.	..... refers to the process of summarizing or creating a report from the data present in one or more source sheets to a target sheet. a. Data consolidation b. Subtotal c. Goal seek d. Solver	
Ans.	a. Data consolidation	
iii.	In database,..... is not a TCL command. a. COMMIT b. ROLLBACK c. SAVEPOINT d. REVOKE	
Ans.	d. REVOKE	
iv.	Which of these is a text-to-speech utility to read the contents displayed on screen? a. Start Magnifier b. Start Narrator c. Start On-Screen Keyboard d. Set up High Contrast	
Ans.	b. Start Narrator	
v.	State whether True or False: “The mail merge feature of OpenOffice Writer allows you to create letters, envelopes, and mailing labels for mass or bulk mailings.” a. True b. False	
Ans.	a. True	
vi.	What is the full form of OLTP? a. Online Transaction Processing b. Operating Transaction Processing c. Online Transaction Procedure d. Operating Transaction Procedure	
Ans.	a. Online Transaction Processing	

<b>Q4.</b>	<b>Answer any 5 out of the given 6 questions</b>	<b>(1 x 5 = 5 marks)</b>
i.	Identify the feature of database that is used for dividing data into categories based on some defined circumstances. a. Classifying b. Summarizing c. Sorting d. Retrieving	
Ans.	a. Classifying	
ii.	Name the topology in which all the computers are connected in a large closed-loop circuit so that each computer is linked to two adjacent computers on either side. a. Bus b. Mesh c. Star d. Ring	
Ans.	d. Ring	
iii.	Which of the following function is not used for calculation subtotals? a. Sum b. Min c. StDev d. Round	
Ans.	d. Round	
iv.	Which of these is the basic model that provides the basic structure to create a document easily and quickly? a. Theme b. Pattern c. Template d. Mail Merge	
Ans.	c. Template	
v.	Which among these is a link between two or more tables. You can connect two fields from two different tables with the help of it? a. Field properties b. Relationship c. Query d. Report	
Ans.	b. Relationship	

vi.	Identify the component that is used to determine the values in multiple input cells to produce the desired result. a. Data consolidation b. What-if tool c. What-if Scenario d. Solver
Ans.	d. Solver

<b>Q5.</b>	<b>Answer any 5 out of the given 6 questions</b> <span style="float: right;"><b>(1 x 5 = 5 marks)</b></span>
i.	..... can be accessed through a Web browser, such as Internet Explorer or Mozilla Firefox. a. Web server b. Web application c. Web port d. Web security
Ans.	b. Web application
ii.	Which type of database refers to the central database that is distributed at multiple locations within a network? a. Flat-file Database b. Relational Database c. Distributed Database d. None of these
Ans.	c. Distributed Database
iii.	In Writer, you can ungroup the grouped objects by pressing the ..... shortcut key. a. Alt + O + G + U b. Alt + O + G + G c. Alt + O + U + G d. Alt + O + U + U
Ans.	a. Alt + O + G + U
iv.	In a table, a ..... serves as a label that specifies the type of information contained in a particular field. a. Field type b. Field name c. Field length d. Field properties
Ans.	b. Field name

v.	Which among the following is a set of commands or actions that is recorded and then executed in a spreadsheet when required? a. What-if tool b. Macro c. What-if Scenario d. Subtotal
Ans.	b. Macro
vi.	Which of the following generally stores the names and address-related information in a tabular format? a. Data table b. Merged document c. Mail letter d. Data source
Ans.	d. Data source

### Section B: Subjective Type Questions

Answer any 3 out of the given 5 questions on Employability Skills

(2 x 3 = 6 marks)

Answer each question in 20 – 30 words.

Q6.	What are the physical signs of stress?
Ans.	The physical sign of stress refers to the changes in the physical personality of an individual. Some such signs are as follows: <ul style="list-style-type: none"> <li>○ Headaches</li> <li>○ Stomach aches</li> <li>○ Nervousness</li> <li>○ Eating disorders</li> </ul>
Q7.	Name any five security mechanisms.
Ans.	Some security mechanisms are as follows: <ul style="list-style-type: none"> <li>○ Antivirus Software</li> <li>○ Username and Password</li> <li>○ Cryptography and Encryption</li> <li>○ Digital Signatures</li> <li>○ Firewall</li> </ul>
Q8.	Discuss any two roles of entrepreneurs in economic development.
Ans.	Entrepreneurs help in the economic development of a country by fulfilling the following roles: <ul style="list-style-type: none"> <li>○ <b>Agent's Role:</b> Entrepreneurs are skilled at identifying business opportunities and establishing business organizations and industries for the same. Industrial development leads to the overall development of the economy.</li> <li>○ <b>Balancing Role:</b> Various entrepreneurs start their business enterprises on a small scale in unindustrialized areas. This helps in balancing the industries in the overall regions of the country.</li> </ul>

Q9.	What do you understand by emotional intelligence?
Ans.	Emotional intelligence is the ability to recognise, regulate, and evaluate your emotions to reduce stress. According to Daniel Goleman, five key elements help you build your emotional intelligence. These elements are self-motivation, empathy, self-awareness, social awareness, and self-regulation.
Q10.	Explain any four objectives of entrepreneurship development.
Ans.	Some of the objectives of ED are as follows: <ul style="list-style-type: none"> <li>○ Increasing the entrepreneur base in the country</li> <li>○ Encouraging potential entrepreneurs to pursue entrepreneurship</li> <li>○ Providing support to budding entrepreneurs</li> <li>○ Recognizing and designing new business opportunities</li> </ul>

**Answer any 4 out of the given 6 questions in 20 – 30 words each (2 x 4 = 8 marks)**

Q11.	What do you understand by mail merge? State any two advantages of using mail merge.
Ans.	Mail merge is used to automatically generate a set of documents, such as a form, letter or label containing similar information that can be sent to different persons/customers with ease. The information that personalizes a letter is the recipient's name and address.  The advantages of using the mail merge feature are as follows: <ul style="list-style-type: none"> <li>○ Mail merger allows you to mass or bulk mailing process for sending information as it saves both time and effort spent in doing the same task several times.</li> <li>○ The letter is simple to amend because any changes made to the main letter will also be made to the letters addressed to all additional recipients.</li> </ul>
Q12.	Explain the term data analysis. Also, discuss any four tools or features for performing data analysis in Calc.
Ans.	Data analysis is an integral function of OpenOffice Calc and refers to the process of collecting data from a source, summarizing the data, and extracting useful information from it. A data source may be a cell range in a sheet, a table, or data imported into a sheet from an external source. OpenOffice Calc provides special features to perform data analysis, which are as follows: <ul style="list-style-type: none"> <li>○ What-if scenario</li> <li>○ What-if tool</li> <li>○ Goal seek</li> <li>○ Solver</li> </ul>
Q13.	Write the procedure to add a comment in a spreadsheet.
Ans.	Perform the following steps to add a comment to a spreadsheet: <ol style="list-style-type: none"> <li>1. <i>Select</i> the cell in the spreadsheet in which you want to add a comment.</li> <li>2. <i>Select</i> the <b>Insert</b> → <b>Comment</b> option from the Menu bar to add a comment. The box appears connected with the selected cell.</li> <li>3. <i>Type</i> the desired comment in the box.</li> <li>4. <i>Click</i> outside the box to close it. Now, the cell appears with a red colour dot at its upper right corner indicating that it has a comment.</li> </ol>



Q14.	Explain the field properties in OpenOffice base.
Ans.	<p>In a database, field properties play an important role in controlling the behaviour of a field. In Base, you can assign the following properties to a field:</p> <ul style="list-style-type: none"> <li>○ <b>AutoValue:</b> Specifies whether the entries are auto incremental values or not. This property is especially used for the Primary Key column.</li> <li>○ <b>Entry Required:</b> Specifies whether the entry of data in the selected field is mandatory or not. For example, in case you set the value as Yes in the field property of a selected field, you must enter data in the field. On the other hand, if the value is set as No, you need not enter data in the field. In other words, you can skip this field.</li> <li>○ <b>Length:</b> Specifies the field length, i.e., the size of the field.</li> <li>○ <b>Decimal Places:</b> Specifies the number of decimal places allowed in the field.</li> <li>○ <b>Default Value:</b> Specifies the value that is added automatically in a field. You can change this value with a value of your own.</li> <li>○ <b>Format Example:</b> Allows you to control the appearance of data in a table. You can use the built-in formats available in Base or define your formats.</li> </ul>
Q15.	Briefly explain the quick access utilities in Windows operating system.
Ans.	<p>The quick access utilities in Windows 10 include:</p> <ul style="list-style-type: none"> <li>○ <b>Start Magnifier:</b> It is a display utility to increase text readability by displaying a magnified selected text in a separate window or screen.</li> <li>○ <b>Start Narrator:</b> It is a text-to-speech utility to read the contents displayed on the screen.</li> <li>○ <b>Start On-Screen Keyboard:</b> It is a virtual keyboard displayed on the screen to enable typing of data using a joystick or any other pointing device.</li> <li>○ <b>Set up High Contrast:</b> It is a utility to increase colour contrast on the screen for making it easier to read.</li> </ul>
Q16.	Discuss some tips to manage a secure and strong password.
Ans.	<p>Some tips to manage a secure and strong password are as follows:</p> <ul style="list-style-type: none"> <li>○ Ensure that the length of the password should at least 8 characters.</li> <li>○ Ensure that the password should be created with a combination of uppercase, lowercase, numbers, and symbols.</li> <li>○ Do not share the username and password with anyone.</li> <li>○ Do not write the username and password on the notebook and papers.</li> <li>○ Ensure that the password should not included in the password dictionaries.</li> <li>○ Uses the random password generators available online to create a secure or strong password.</li> <li>○ Update the password within 6 months.</li> <li>○ Ensure that the password you create does not match the past used password.</li> <li>○ Ensure that the password will not be the bike number, mobile number, pet name, favorite colour, childhood name, etc.</li> <li>○ Ensure that different passwords are used for different portals and websites.</li> <li>○ Use Two-Factor Authentication (2FA) at the time of resetting the password.</li> </ul>

Answer any 3 out of the given 5 questions in 50– 80 words each

(4 x 3 = 12 marks)

Q17.	<p>Nakul is a class X student. He is studying the topic of data analysis in Calc. Assist him to prepare the notes on the following points:</p> <ol style="list-style-type: none"><li>i. Goal seek</li><li>ii. Data consolidation</li><li>iii. Macro</li><li>iv. Commenting cell</li></ol>
Ans.	<ol style="list-style-type: none"><li>i. Goal seek finds the correct input to produce the desired output. For example, if you know the result that you want from a formula, but not the input value the formula needs to get that result, then you can use the Goal Seek tool.</li><li>ii. Data consolidation refers to the process of summarizing or creating a report from the data present in one or more source sheets to a target sheet. When consolidating data, the source data can be the same sheet or different sheets.</li><li>iii. A macro can be defined as a set of commands or actions that are recorded and then executed in a spreadsheet when required. Macro provides the facility to reuse the recorded action in a spreadsheet several times when required, thereby making your work easier. By using macros, you can reduce the wastage of time in performing repetitive tasks.</li><li>iv. Comments are used by editors, authors, or reviewers for exchanging their thoughts as well as for giving suggestions. In OpenOffice Calc, comments are well-organized and easy-to-read. The cell that contains the comment appears with a red colour dot at the upper right-hand corner. You can add, edit, format, or delete comments.</li></ol>
Q18.	<p>Samarth is a student of class X. He is preparing the notes in OpenOffice Base. As a classmate help him to understand the following topics:</p> <ol style="list-style-type: none"><li>i. Database</li><li>ii. Query</li><li>iii. Primary key</li><li>iv. Relationship</li><li>iv. Text panel</li></ol>
Ans.	<ol style="list-style-type: none"><li>i. A database is a collection of related data about a single entity or subject. In a database, an entity is an object that has an independent existence.</li><li>ii. A query is a request sent to a database to retrieve specific data from a table. When you want to search for records in a database, you can use a query.</li><li>iii. A primary key is a key that is used to uniquely identify the data in a column of a table. It states that the column to which the primary key is applied cannot have duplicate entries. It means that each value in the column must be unique. You must also remember that a primary key column cannot have a NULL value.</li><li>iv. A relationship is a link between two or more tables. You can connect two fields from two different tables with the help of a relationship. You can create relationships between tables to bring together related information. Relationships between tables are essential for creating a form, report, or query that uses information from more than one table in a database.</li></ol>

Q19.	<p>Your friend wants to know about some advanced concepts or features in OpenOffice Writer. As a friend explain the following advanced concept and features:</p> <ol style="list-style-type: none"> <li>What is style?</li> <li>Write the steps to insert an image in a document from the gallery.</li> <li>Define the term 'Template'.</li> <li>How to group objects in Writer?</li> </ol>																																										
Ans.	<ol style="list-style-type: none"> <li>In OpenOffice Writer, style refers to the set of text and page formatting attribute, such as font, font size, bold, underline, and text colour, page margin, size, and orientation. With the help of styles, you need not go through different command sets, panels and dialog boxes to get the desired look of the text.</li> <li>The steps to insert an image in a document from the gallery are as follows:             <ol style="list-style-type: none"> <li>Open a document in which you want to insert an image.</li> <li>Click the <b>Gallery</b> button on the Sidebar. The <b>Gallery</b> panel appears.</li> <li>Select a theme from the <b>Gallery</b> panel. The <b>Gallery</b> panel displays the images based on the selected theme.</li> <li>Right-click the image that you want to insert in a document. A context menu appears.</li> <li>Select the <b>Insert</b> option from the context menu. A submenu appears.</li> <li>Select the <b>Copy</b> option from the submenu. The image is inserted into a document.</li> </ol> </li> <li>A template is the basic model that provides the basic structure to create a document easily and quickly. Templates offer sets of different predefined visual elements that you can later customize according to your requirements. OpenOffice writer provides a wide range of templates with various layouts, fonts, styles, and colours.</li> <li>The steps to apply bullets in a document are as follows:             <ol style="list-style-type: none"> <li>Open a document containing two or more objects.</li> <li>Select the objects by dragging a selection box around the objects.</li> <li>Select the <b>Format</b> → <b>Group</b> → <b>Group</b> option from the <b>Menu</b> bar. The selected objects are grouped.</li> </ol> </li> </ol>																																										
Q20.	Consider the following Employee table:																																										
	<table border="1"> <thead> <tr> <th>ID</th> <th>Name</th> <th>Gender</th> <th>Date of Birth</th> <th>Division</th> <th>Salary</th> </tr> </thead> <tbody> <tr> <td>CM790120</td> <td>Yash</td> <td>Male</td> <td>03-11-1979</td> <td>Meerut</td> <td>120000</td> </tr> <tr> <td>CF840121</td> <td>Ridhima</td> <td>Female</td> <td>30-04-1984</td> <td>Ghaziabad</td> <td>98000</td> </tr> <tr> <td>CM620123</td> <td>Manan</td> <td>Male</td> <td>19-03-1962</td> <td>Delhi</td> <td>95000</td> </tr> <tr> <td>CM780124</td> <td>Devansh</td> <td>Male</td> <td>04-04-1978</td> <td>Delhi</td> <td>89000</td> </tr> <tr> <td>CF890125</td> <td>Kirti</td> <td>Female</td> <td>30-11-1989</td> <td>Meerut</td> <td>80000</td> </tr> <tr> <td>CF830126</td> <td>Vinita</td> <td>Female</td> <td>17-04-1983</td> <td>Gurugram</td> <td>110000</td> </tr> </tbody> </table> <p>After analyzing the table, answer the following questions:</p> <ol style="list-style-type: none"> <li>Write the SQL query to display all records of the table.</li> <li>Write the SQL query to display the ID and Name of the employees whose salary is greater than 95000.</li> </ol>	ID	Name	Gender	Date of Birth	Division	Salary	CM790120	Yash	Male	03-11-1979	Meerut	120000	CF840121	Ridhima	Female	30-04-1984	Ghaziabad	98000	CM620123	Manan	Male	19-03-1962	Delhi	95000	CM780124	Devansh	Male	04-04-1978	Delhi	89000	CF890125	Kirti	Female	30-11-1989	Meerut	80000	CF830126	Vinita	Female	17-04-1983	Gurugram	110000
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	<p>iii. Write the SQL query to display the Name and Date of Birth of the employees who are belonging to the Meerut division.</p> <p>iv. Write the SQL query to display the ID and Name of the employees who are female.</p>
Ans.	<p>i. Select * from Employee;</p> <p>ii. Select ID, Name from Employee where Salary &gt; 95000;</p> <p>iii. Select Name, Date of Birth from Employee where Division= 'Meerut';</p> <p>iv. Select ID, Name from Employee where Gender = 'Female';</p>
Q21.	<p>Medhavi is a class 10<sup>th</sup> student who always scores good marks in her examinations. But he faces problems to understand internet security and cybercrime-related topics. Being a friend of Medhavi, help him to answer the following questions:</p> <p>i. What is internet security?</p> <p>ii. Briefly discuss any three potential threats to Internet security.</p> <p>iii. List down the precautions that the user needs to follow while operating the Internet.</p> <p>iv. Discuss any two ways that are used for protecting the system from Internet security threats.</p>
Ans.	<p>i. Internet security is extremely important for government agencies and business organizations to protect confidential details and critical financial data. The term 'Internet security' includes browser security, authentication, data protection and security of data submitted via web forms. Internet security involves the implementation and use of specific resources and web standards for establishing the rules and measures to follow against a security breach.</p> <p>ii. Some potential threats to Internet security are as follows:</p> <ul style="list-style-type: none"> <li>● <b>Hacking:</b> It refers to the act of gaining unauthorized access to another person's computer to steal or destroy crucial data or information. A person who does hacking is called a hacker. A hacker can use his skills to protect the network of an organization or to steal confidential information from the organization's network.</li> <li>● <b>Password cracking:</b> It refers to a technique that cracks the password of a computer and then accesses the computer through a remote computer.</li> <li>● <b>Spoofing:</b> Spoofing is the technique used by unethical hackers to certify fake data over the Internet for stealing confidential information.</li> </ul> <p>iii. Certain precautions that user needs to follow while operating the Internet are:</p> <ul style="list-style-type: none"> <li>● Avoid disclosing any personal information as it amounts to disclosing your identity to strangers in a public place.</li> <li>● Avoid sharing photographs and personal information on social networking sites.</li> <li>● Use the updated antivirus software to protect the system against virus attacks.</li> <li>● Keep back-up volumes so that one may not suffer data loss in case of virus attacks.</li> <li>● Check carefully the e-mail messages before responding to them. There might be phishing e-mails in your account.</li> <li>● Create strong passwords for log-in accounts on websites.</li> </ul> <p>iv. Two ways that are used for protecting the system from the Internet security threats are as follows:</p> <ul style="list-style-type: none"> <li>● <b>Encryption:</b> In this method, data is encoded in a manner so that it can only be read by an authorized user. Encryption uses different algorithms at its core to generate ciphertext (encoded text) which can be read only after decryption.</li> <li>● <b>Antivirus Software:</b> These are security programs for protecting a programmable device from security threats that work by detecting and eliminating malware and viruses.</li> </ul>