INFORMATION TECHNOLOGY (SUBJECT CODE - 402)
Sample Question Paper for Class X (Session 2023-2024)

Max. Time: 2 Hours   **Max. Marks: 50**

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):**

    i. This section has 05 questions.

    ii. Marks allotted are mentioned against each question/part.

    iii. There is no negative marking.

    iv. Do as per the instructions given.

7. **SECTION B – SUBJECTIVE TYPE QUESTIONS (26 MARKS):**

    i. This section has 16 questions.

    ii. A candidate has to do 10 questions.

    iii. Do as per the instructions given.

    iv. Marks allotted are mentioned against each question/part.

SECTION A: OBJECTIVE TYPE QUESTIONS

Q. 1	**Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)**	
i.	Feedback is an important part of the communication cycle. A good feedback is always _____. a. Generic b. Specific c. Ignored d. Impolite	1
ii.	_____ provide us with energy and motivation to achieve our goals. a. Stress b. Distress c. Eustress d. Depression	1

iii.	To be a successful entrepreneur, you must be _____ . a. Goal - Oriented b. Rich c. Technology Driven d. Visionaries	1
iv.	What is self-motivation? a. External pressure to perform tasks b. The force within you that drives you to do things c. Influence from others to achieve goals d. The ability to avoid doing things without external influence	1
v.	What does the "R" in SMART signify when setting goals? a. Rigorous b. Resourceful c. Realistic d. Rewarding	1
vi.	Which of the following is a key component of sustainable development? a. Expanding the excessive use of resources b. Disregarding the need for resource conservation c. Recycling and reusing waste materials d. Ignoring the management of renewable resources	1

Q. 2	**Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)**	
i.	Which of the following is true about a Table of Contents? a. Usually located at the end of a document. b. Provides an organized list of chapters along with their page numbers. c. Useful only for shorter documents. d. Primarily used for fiction books.	1
ii.	The _____ document is creating by combining the main document with the data source fields. a. Merged c. Collated b. Combined d. Blank	1
iii.	A file saved with the extension .ott is called a _____. a. Style b. Theme c. Template d. Object	1
iv.	Mail merge feature can help you in printing multiple addresses _____ on a single sheet. a. Stickers b. Objects c. Labels d. Details	1
v.	Which category of styles will you click to set the font and size of text in a paragraph? a. Tablet Styles c. Character Styles b. Paragraph Styles d. Indent Styles	1

vi.	_____ is a combination of title, heading, and paragraph styles. a. Style Set c. Color Set b. Font Set d. Index Set	**1**

Q. 3	**Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)**	
i.	Which step should you follow before using the subtotal command? a. Consolidate Data b. Sort data c. Filter data d. both A & C	**1**
ii.	Sarah, a project manager, needs to combine data from various team progress reports into a master worksheet for an overall project overview. To achieve this, she will utilize the feature of a spreadsheet known as _____. a. Consolidate c. Columns b. Subtotal d. Data Provider	**1**
iii.	The _____ feature of spreadsheet enables you to keep track of the changes made by you or the other users in a spreadsheet. a. Changes b. Track Changes c. Record Changes d. Show Changes	**1**
iv.	A hyperlink in a spreadsheet can be _____. a. Text c. both a and b b. Picture d. none of these	**1**
v.	_____ allows you to record a set of actions that you perform repeatedly in a spreadsheet. a. Mail Merge b. Review c. Macro d. Solver	**1**
vi.	An argument can be passed through a macro function _____. a. By Value c. Both a and b b. By Reference d. None of these	

Q. 4	**Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)**	
i.	In a database, the information is stored in the form of _____: a. Rows c. Tables b. Columns d. All of the above	**1**
ii.	In which type of database, can you retrieve the data from the related tables? a. Database Management System b. Relational Database Management System c. Rational Database Management System d. None of the above	**1**

iii.	A table can have only one _____ key. a. Primary c. Composite b. Secondary d. Concatenation	**1**
iv.	Which of the following database objects are used to retrieve data from database? a. Queries b. Tables c. Reports d. Layouts	**1**
v.	The _____ SQL command is used to create a table in the database. a. Select c. Insert table b. Create table d. Add table	**1**

vi.	The _____ data type is used to store date or time or combination of date and time. a. Date/Time b. Calendar c. Interval d. Table	**1**
Q. 5	**Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)**	
i.	Which of these is a psychological factor at work that can prove Hazardous? a. Conflicts at workplace b. Lasers c. Presence of allergens d. None of these	**1**
ii.	Mehul is a remote worker who needs to join a virtual team meeting. He connects his laptop to a device that helps transmit digital signals over the internet. This device is referred to as a _____. a. Hub b. Switch c. Repeater d. Modem	**1**
iii.	Communication over the internet is governed by a set of rules known as _____. a. Topology b. Network c. Protocols d. Internet	**1**
iv.	The process of selling and buying products over the internet is called _____. a. Online Shopping b. E- reservation b. E- banking d. None of these	**1**
v.	The Qumana blog _____ window helps you to add a blog. a. Helper c. Manager b. Both a and b d. None of these	**1**
vi.	What is the act of sending an email to a user, misleading them to believe it originates from a trusted person or organisation? a. Phishing b. Cracking c. Hacking d. Malware	**1**

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.

Q. 6	Write two ways to overcome barriers to effective communication.	2
Q. 7	Define extrinsic motivation.	2
Q. 8	What do you understand by the term 'Computer Maintenance'? Differentiate between hardware and software maintenance.	2
Q. 9	What are the two types of risks usually faced by an entrepreneur?	2
Q. 10	"Natural occurrences can pose a threat to sustainability." Explain.	2

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

Q. 11	What is Table of Contents? List any two characteristics of a good TOC.	2
Q. 12	Mention any two operations that can be performed using Macros in a spreadsheet.	2
Q. 13	Sharing a spreadsheet is useful. Why?	2
Q. 14	Differentiate between DML and DDL.	2
Q. 15	Why do you need to back-up your data?	2
Q. 16	Mention two preventive measures that can be taken to prevent accidents at the workplace.	2

Answer any 3 out of the given 5 questions in 50– 80 words each (4 x 3 = 12 marks)

Q. 17	List the different styles categories available in document.	4
Q. 18	What is a solver? How is it different from Goal Seek?	4
Q. 19	What precautions must be taken to improve the internet security?	4
Q. 20	Sudheer is not clear about the use of a database. Explain to him the following to give him a better understanding of the DBMS concepts. a. Describe any four advantages of DBMS. b. State the relationship and difference between a primary and foreign key.	4
Q. 21	Consider the following table name Employee and write the queries for the following:	4

EmployeeID	FirstName	LastName	Department	Salary
1	Rajesh	Kumar	IT	60000.0
2	Priya	Singh	HR	55000.0
3	Anjali	Sharma	Finance	65000.0
4	Manish	Gupta	Sales	58000.0
5	Pooja	Verma	Marketing	60000.0

i. Write an SQL command to display the employees in descending order of their salary.
ii. Write a query to display the details of employees who belong to the 'HR' department.
iii. Write an SQL query to display the details of the employees whose salary falls within the range of 50000 and 60000.
iv. Write a query to delete the employee with EmployeeID 3 from the table.

INFORMATION TECHNOLOGY (SUBJECT CODE - 402)

MARKING SCHEME SAMPLE PAPER-1 (SESSION 2023-2024)

CLASS X

Max. Time: 2 Hours   **Max. Marks: 50**

SECTION A: OBJECTIVE TYPE QUESTIONS

Q. No.	QUESTION	Marks
Q. 1	**Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)**	
i.	b. Specific	1
ii.	c. Eustress	1
iii.	a. Goal – Oriented	1
iv.	b. The force within you that drives you to do things	1
v.	c. Realistic	1
vi.	c. Recycling and reusing waste materials	1
Q. 2	**Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)**	
i.	b. Provides an organized list of chapters along with their page numbers	1
ii.	a. Merged	1
iii.	c.Template	1
iv.	c. Labels	1
v.	b. Paragraph Styles	1
vi.	a. Style Set	1
Q. 3	**Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)**	
i.	b. Sort data	1
ii.	a. Consolidate	1
iii.	a. Track Changes	1
iv.	c. both a and b	1
v.	c. Macro	1
vi.	a. By Value	1
Q. 4	**Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)**	
i.	c. Tables	1
ii.	b. Relational Database Management System	1
iii.	a. Primary	1
iv.	a. Queries	1
v.	b. Create table	1
vi.	a. Date/Time	1
Q.5.	**Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)**	
i.	a. Conflicts at workplace	1
ii.	d. Modem	1

iii.	c. Protocols	**1**
iv.	a. Online Shopping	**1**
v.	c. Manager	**1**
vi.	a. Phishing	**1**

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.**	
Ans. 6	Two ways to overcome barriers to effective communication are: i. Messages should be simple and appropriate to serve the purpose of communication. ii. By using the appropriate language, the sender can ensure that the receiver correctly interprets the meaning of the message being conveyed.	**2**
Ans. 7	Extrinsic motivation refers to the behavior of a person that is driven by the desire to attain some sort of an external reward, including money, power, and good grades.	**2**
Ans. 8	Computer maintenance refers to the practice of keeping computers in good condition so that they can work efficiently. Hardware maintenance refers to the maintenance of the hardware components such as monitor, keyboard, etc., while software maintenance refers to the cleaning of the software installed in the computer.	**2**
Ans. 9	The two types of risks usually faced by an entrepreneur are: i. Business Risks: These are risks associated with the day-to-day operations and decisions of the business. They can include factors like market competition, changes in consumer preferences, economic downturns, and operational challenges. ii. Financial Risks: These risks pertain to the financial aspects of the business, including investment decisions, funding, cash flow management, and debt obligations	**2**
Ans. 10	Natural occurrences, such as hurricanes, earthquakes, floods, and wildfires, have the potential to cause significant damage to businesses, communities, and the environment. These events can disrupt operations, lead to physical destruction, and incur financial losses.	**2**
	Answer any 4 out of the given 6 questions in 20 – 30 words each (2 x 4 = 8 marks)	
Ans. 11	A table of contents is a list of chapters at the beginning of a book. A table of content helps in navigating through a document by providing associated page numbers and direct links to various headings available on those pages. Two characteristics of a good TOC are: i. It should provide a clear and concise overview of the document's structure. ii. It should use descriptive headings and subheadings that accurately represent the content of each section.	**2**
Ans. 12	Macros are used to perform different types of operations in a Spreadsheet: 1. Formatting settings to be applied repeatedly in a spreadsheet. 2. Sorting Data. 3. Applying mathematical functions/formulas	**2**
Ans. 13	Sharing a spreadsheet is useful because: i. It allows multiple users to work on the same document simultaneously, making it easier to collaborate on projects. ii. It helps in tracking changes, so we can revert to previous versions if needed.	**2**

Ans. 14	DML	DDL	2
	DML stands for data manipulation language that deals with data manipulation operations within a database.	DDL stands for Data Definition Language that deals with defining and managing the structure of the database objects.	
	It includes commands like INSERT, UPDATE, and DELETE.	It includes commands like CREATE, ALTER, and DROP.	

Ans. 15	Backing up data ensures that we can recover our important files and information in case of natural disasters like floods, fires, or earthquakes. It provides a historical record of our files, allowing us to revert to earlier versions if needed.	2

Ans. 16	Two preventive measures that can be taken to prevent accidents at the workplace are: i. Provide comprehensive training to employees about workplace safety, including proper handling of equipment, emergency procedures, and awareness of potential hazards. ii. Conduct routine inspections of the workplace to identify and address potential safety hazards. This includes checking equipment, ensuring proper signage, and maintaining a clean and organized workspace.	2

Answer any 3 out of the given 5 questions in 50– 80 words each (4 x 3 = 12 marks)

Ans. 17	The different style categories available in document are: i. Paragraph Styles: It defines the formatting attributes for entire paragraphs of text. This includes settings such as font, size, indentation, line spacing, and alignment. Applying a paragraph style will automatically apply these attributes to the selected paragraph(s). ii. Character Styles: This allows us to define specific formatting attributes for individual characters or words within a paragraph. This can include changes in font, size, color, and other characteristics. iii. Page Styles: This controls the layout and formatting of entire pages in a document. They include settings for page size, orientation, margins, headers, footers, and background. Page styles are useful for creating documents with different layouts (e.g., portrait vs. landscape) or for customizing headers and footers. iv. Frame Styles: These are used to format text frames, which are containers that hold text or graphics. Frame styles define attributes such as borders, backgrounds, padding, and text flow within the frame. v. List Styles: This defines the formatting of numbered or bulleted lists in a document. This includes settings for the type of numbering or bullet points, indentation, and spacing between items. vi. Cell Styles: These are used to format individual cells or groups of cells. This includes settings for font, borders, background color, alignment, and more.	4

Ans. 18	A solver is a mathematical tool or algorithm used in spreadsheet software to find an optimal solution to a problem, typically by adjusting certain variables while considering a set of constraints. Solvers can be used to maximize or minimize a target value, subject to specific constraints. Goal Seek, on the other hand, is a specific feature in spreadsheet software that allows you to set a target value for a particular cell and then find the input value needed to achieve that target. It is primarily used for finding a specific solution to a problem, rather than optimizing for the best outcome. **Using Goal Seek:** Usually, you run a formula to calculate a result based upon existing values. By contrast, using the Goal Seek option, you can discover what values will produce the result that you want. i) **Using the Solver: Solver is** a more elaborate form of Goal Seek. The difference is that the Solver deals with equations with multiple unknown variables. It is specifically designed to minimize or maximize the result according to a set of rules that you define. Each of these rules sets up whether an argument in the formula should be greater than, lesser than, or equal to the value you enter.	4
Ans. 19	Some precautions we can take to improve the internet security are: i. Use strong and unique passwords that include a mix of upper and lower-case letters, numbers, and special characters. ii. Regularly update our operating system, software applications, and antivirus/anti-malware programs to patch security vulnerabilities. iii. Avoid entering sensitive information on websites that do not have a secure connection (look for "https://" in the URL and a padlock icon in the browser). iv. Avoid clicking on suspicious links or downloading attachments from unknown or unexpected sources. Be wary of phishing emails. v. Install a reliable antivirus and anti-malware program to detect and protect against viruses, malware, and other online threats. vi. Perform regular backups of important files and data. vii. Use a firewall to monitor incoming and outgoing network traffic.	4
Ans. 20	1. Advantages of DBMS: i. Improved data sharing: Users of a database can share information among themselves. ii. Improved data security: DBMS provides security to sensitive data by performing authorization checks and enforcing selective access to the users. iii. Better data integration: Data integrity means maintaining and assuring the accuracy and consistency of data. iv. Reduces data redundancy: All the information is kept in only one place, and no need to maintain a separate copy of the same data over and over again, this ensures there is no duplication and redundancy. 2. A primary key is used to ensure that the value in the particular column is unique. The foreign key provides the link between two tables. A foreign key is a column or a set of columns in one table that references the primary key columns in another table. Difference: • A table allows only one primary key but can allow more than one foreign key. • The primary key doesn't allow null values and cannot be deleted. Foreign key accepts multiple null values and can be deleted.	4

Ans. 21	i. SELECT * FROM Employee ORDER BY Salary DESC; ii. SELECT * FROM Employee WHERE Department = 'HR'; iii. SELECT * FROM Employee WHERE Salary BETWEEN 50000 AND 60000; iv. DELETE FROM Employee WHERE EmployeeID = 3;	4