

INFORMATION TECHNOLOGY (SUBJECT CODE 402)
CLASS X (SESSION 2021-2022)
SAMPLE QUESTION PAPER FOR TERM -2
Answer Key

Max. Time Allowed: 60 Minutes (1 Hr)

Max. Marks: 25

General Instructions:

1. Please read the instructions carefully.
2. This Question Paper is divided into 03 sections, viz., Section A, Section B, and Section C.
3. Section A is of 05 marks and has 06 questions on Employability Skills.
4. Section B is of 15 marks and has 12 questions on Subject Specific Skills.
5. Section C is of 05 marks and has 02 competency-based questions.
6. Do as per the instructions given in the respective sections.
7. Marks allotted are mentioned against each section/question.
8. All questions must be attempted in the correct order.

SECTION A

Answer any 3 questions out of the 4 given questions on Employability Skills. (1 x 3 = 3 marks)

1	Entrepreneurship is not only beneficial for the entrepreneur himself but it is also essential for the _____ of the economy. a. Progress b. Growth c. Decline d. All of these	1
2	Sunil had started a business after leaving his permanent job. He could not earn any profit in the first few years of the business. He worked hard, researched a lot, and put in extra effort to make the business succeed. Which quality of Sunil is shown here? a. Perception b. Intuition c. Passion d. Vision	1
3	The key to using resources in sustainable development is the minimum use of resources for the maximum benefit without _____ . a. Consideration b. Wastage c. Participation d. Thinking	1
4	Savita's class has started an initiative in her school to encourage the students to use the leftover papers in their notebooks before discarding them. How is it going to help in protecting the environment? a. It will reduce unnecessary wastage. b. It will put less burden on the recycling process. c. It will encourage the other students to care about the environment. d. All of these	1

Answer any 1 question out of the 2 given questions on Employability Skills. (2 x 1 = 2 marks)

5	<p>According to you, what are the two most important qualities required to become a successful entrepreneur?</p> <p>Ans. The two most important qualities required to become a successful entrepreneur are:</p> <ul style="list-style-type: none"> • Motivation – Entrepreneurs are highly motivated. They do not depend on someone else to push them towards their goal. • Having Vision - Entrepreneurs are visionaries. They have a clear vision about their goal. 	2
6	<p>Write any two objectives of sustainable development.</p> <p>Ans. The two objectives of sustainable development are:</p> <ul style="list-style-type: none"> • Economic Growth – The main objective of sustainable development is to build a robust and competitive economy. • Environmental Protection – The second objective is to protect and enhance our natural environment by improving diversity, using natural resources wisely, and by minimising wastage. 	2

Section B

Answer any 5 questions out of the 6 given questions on Subject Specific Skills. (1 x 5 = 5 marks)

7	<p>_____ are dedicated computers that hold the actual databases and run only DBMS and related software.</p> <p>a. Main Server b. Web Server c. Database Server d. Non-Database Server</p>	1
8	<p>Duplication of data is called _____.</p> <p>a. Inconsistency b. Consistency c. Redundancy d. Foreign Key</p>	1
9	<p>At Rekha's school, there is one central computer that has all the resources, such as a printer and high-power processor. Which type of network architecture is being used there?</p> <p>a. Point-to-point b. Peer-to-peer c. Client-Server d. Consumer-Provider</p>	1
10	<p>_____ is a form of communication over the internet that offers an instantaneous transmission of text-based messages from sender to receiver.</p> <p>a. Video Conferencing b. Instant Messaging c. Blogging d. Networking</p>	1
11	<p>Which of the following fields in the table "Book" can act as a primary key?</p> <p>a. Book_number b. Subject c. price d. Author_name</p>	1

12	<p>Aarti is experiencing abnormal behaviour of some applications in her computer. Some of her files have been converted to executable files with the extension '.exe'.</p> <p>What could be the possible reason for this?</p> <p>a. Phishing attack b. Spamming attack c. Virus attack d. Spyware attack</p>	1
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Answer any 2 questions out of the 3 given questions on Subject Specific Skills. (2 x 2 = 4 marks)

13	<p>Write any two uses of online shopping.</p> <p>Ans. Online shopping is useful when:</p> <ul style="list-style-type: none"> • A customer does not have enough time to visit stores. • Visiting a store is more expensive than purchasing a product online. 	2
14	<p>Define referential integrity.</p> <p>Ans. Referential integrity is used to maintain the accuracy and consistency of data in a relationship.</p> <p>It helps to avoid adding records in a related table if there is no associated record available in the primary key table.</p>	2
15	<p>Differentiate between tuples and attributes of a table.</p> <p>Ans. A tuple represents a single data item in a table. It is also referred to as a row or record of the table.</p> <p>An attribute is a set of data values of a particular simple type, one for each row of the table. It is the column or field of a table.</p>	2

Answer any 2 questions out of the 3 given questions on Subject Specific Skills. (3 x 2 = 6 marks)

16	<p>How many types of relationships can be created in a database? Explain each one of them.</p> <p>Ans. There are three types of relationships which can be created in tables:</p> <ol style="list-style-type: none"> 1. ONE to ONE – In this relationship, both the tables must have primary key columns. It signifies that one column of the primary table is associated with exactly one column of the other associated table. 2. ONE to MANY or MANY to ONE – In this relationship, one of the tables must have a primary key column. It signifies that one column of the primary table is associated with all the columns of the associated table. <p>MANY to MANY - In this relationship, no table has the primary key column. It signifies that all the columns of the primary table are associated with all the columns of the associated table.</p>	3
17	<p>Define blogging. What are the two methods of writing a blog?</p> <p>Ans. A blog is a discussion style site used by non-technical (or technical users) users for creating personal web pages. Blogs are similar to an online personal diary and simple to use. You can use a blog to convey messages about events, announcements, news, reviews, etc.</p> <p>There are two methods of creating blogs:</p> <p>Online blogs - are usually managed using a web browser and this requires an active internet connection.</p> <p>Offline blogs - You can also use offline blog software to create the content first and publish the content later when an active internet connection is available.</p>	3
18	<p>Write down any two advantages of using computer networks.</p> <p>Ans. Some of the advantages of using computer networks are:</p>	3

<ul style="list-style-type: none"> •Data Sharing: One of the most important uses of networking is to allow the sharing of data. •Files Transfer: Users can send text files, spread sheets, documents, presentations, audio files, video files, etc., to other users. •Hardware Sharing: Hardware components such as printers, scanners, etc., can also be shared. For example, instead of purchasing 10 printers, one for each user, one printer can be purchased and shared among multiple users thus saving the cost. 	
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Section C

Answer any 1 question out of the 2 given questions on Subject Specific Skills. (5 x 1 = 5 marks)

9	<p>ABS School uses a database management system to store student details. The school maintains a database 'School_Data' under which there are two tables.</p> <p>Student Table: To maintain the general details of every student enrolled in the school.</p> <p>StuLib Table: To store the details of issued books.</p> <p>BookID is the unique identification number assigned to each book. The book can be issued for a minimum duration of one day.</p> <table border="1" style="margin: 10px auto;"> <thead> <tr> <th colspan="2">StuLib</th> </tr> <tr> <th>Field</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td>BookID</td> <td>Numeric</td> </tr> <tr> <td>StuID</td> <td>Numeric</td> </tr> <tr> <td>Issue_Date</td> <td>Date</td> </tr> <tr> <td>Return_Date</td> <td>Date</td> </tr> </tbody> </table> <table border="1" style="margin: 10px auto;"> <thead> <tr> <th colspan="2">Student</th> </tr> <tr> <th>Field</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td>StuID</td> <td>Numeric</td> </tr> <tr> <td>StuName</td> <td>Varchar(20)</td> </tr> <tr> <td>StuAddress</td> <td>Varchar(50)</td> </tr> <tr> <td>StuFatherName</td> <td>Varchar(20)</td> </tr> <tr> <td>StuContact</td> <td>Numeric</td> </tr> <tr> <td>StuAadhar</td> <td>Numeric</td> </tr> <tr> <td>StuClass</td> <td>Varchar(5)</td> </tr> <tr> <td>StuSection</td> <td>Varchar(1)</td> </tr> </tbody> </table> <p>i. Identify the SQL query which will display the data from the StuLib table in the ascending order of StudentID.</p> <ol style="list-style-type: none"> Select * from StuLibrary Order by BookID Select * from StuLibrary Order by StuID Select * from StuLibrary Order by StuID ASC Select * from StuLibrary Order by StuID DESC <p>Choose the correct option:</p> <ol style="list-style-type: none"> Both queries i) and iv) will display the desired data. Both queries i) and ii) will display the desired data. Both queries iii) and iv) will display the desired data. Both queries ii) and iii) will display the desired data. <p>ii. The Primary Key for StuLibrary Table is/are</p> <ol style="list-style-type: none"> BookID 	StuLib		Field	Type	BookID	Numeric	StuID	Numeric	Issue_Date	Date	Return_Date	Date	Student		Field	Type	StuID	Numeric	StuName	Varchar(20)	StuAddress	Varchar(50)	StuFatherName	Varchar(20)	StuContact	Numeric	StuAadhar	Numeric	StuClass	Varchar(5)	StuSection	Varchar(1)	5
StuLib																																		
Field	Type																																	
BookID	Numeric																																	
StuID	Numeric																																	
Issue_Date	Date																																	
Return_Date	Date																																	
Student																																		
Field	Type																																	
StuID	Numeric																																	
StuName	Varchar(20)																																	
StuAddress	Varchar(50)																																	
StuFatherName	Varchar(20)																																	
StuContact	Numeric																																	
StuAadhar	Numeric																																	
StuClass	Varchar(5)																																	
StuSection	Varchar(1)																																	

	<p>b. BookID, StuID c. BookID, Issued_date d. Issued_date</p> <p>iii. Which of the following SQL query will fetch the IDs of the issued books which have not been returned? a. SELECT BookID from StuLibrary where BookID is NULL; b. SELECT BookID from StuLibrary where StuID is NULL; c. SELECT BookID from StuLibrary where Issued_date is NULL; d. SELECT BookID from StuLibrary where Return_date is NULL;</p> <p>iv. The Alternate Key for the Student Table will be a. StuName b. StuContact c. StuAadhar d. StuClass</p> <p>v. Write an SQL query to display the dates on which the number of books issued is greater than 5. SELECT Issued_date from StuLibrary GROUP BY Issued_date having count(*)>5</p>	
20	<p>List any three types of hazards at the workplace. Give a checklist for workstations to minimise hazards.</p> <p>Ans. The three types of hazards at workplace are:</p> <ul style="list-style-type: none"> • Hazards due to chemicals • Hazards due to electric shocks • Hazards due to fire <p>Checklist for Workstations: The workstations should:</p> <ul style="list-style-type: none"> • have enough space for the user to alter his position comfortably. • have adequate lighting. • have windows fitted with adjustable coverings to alter the sunlight level. • be spacious enough when a workstation is shared by more than one person. 	5