

<p>Marking Scheme</p> <p>Strictly Confidential</p> <p>(For Internal and Restricted use only)</p> <p>Secondary School Examination, 2024</p> <p>SUBJECT NAME: INFORMATION TECHNOLOGY</p> <p>(SUBJECT CODE – 402) (PAPER CODE – 89)</p>	
<p><u>General Instructions: -</u></p>	
1	<p>You are aware that evaluation is the most important process in the actual and correct assessment of the candidates. A small mistake in evaluation may lead to serious problems which may affect the future of the candidates, education system and teaching profession. To avoid mistakes, it is requested that before starting evaluation, you must read and understand the spot evaluation guidelines carefully.</p>
2	<p>“Evaluation policy is a confidential policy as it is related to the confidentiality of the examinations conducted, Evaluation done and several other aspects. Its’ leakage to public in any manner could lead to derailment of the examination system and affect the life and future of millions of candidates. Sharing this policy/document to anyone, publishing in any magazine and printing in News Paper/Website etc. may invite action under various rules of the Board and IPC.”</p>
3	<p>Evaluation is to be done as per instructions provided in the Marking Scheme. It should not be done according to one’s own interpretation or any other consideration. Marking Scheme should be strictly adhered to and religiously followed. However, while evaluating, answers which are based on latest information or knowledge and/or are innovative, they may be assessed for their correctness otherwise and due marks be awarded to them. In Class-X, while evaluating two competency-based questions, please try to understand given answer and even if reply is not from marking scheme but correct competency is enumerated by the candidate, due marks should be awarded.</p>
4	<p>The Marking scheme carries only suggested value points for the answers</p> <p>These are in the nature of Guidelines only and do not constitute the complete answer. The students can have their own expression and if the expression is correct, the due marks should be awarded accordingly.</p>
5	<p>The Head-Examiner must go through the first five answer books evaluated by each evaluator on the first day, to ensure that evaluation has been carried out as per the instructions given in the Marking Scheme. If there is any variation, the same should be zero after deliberation and discussion. The remaining answer books meant for evaluation shall be given only after ensuring that there is no significant variation in the marking of individual evaluators.</p>
6	<p>Evaluators will mark (√) wherever answer is correct. For wrong answer CROSS ‘X’ be marked. Evaluators will not put right (✓) while evaluating which gives an impression that answer is correct and no marks are awarded. This is most common mistake which evaluators are committing.</p>
7	<p>If a question has parts, please award marks on the right-hand side for each part. Marks awarded for different parts of the question should then be totalled up and written in the left-hand margin and encircled. This may be followed strictly.</p>

8	If a question does not have any parts, marks must be awarded in the left-hand margin and encircled. This may also be followed strictly.
9	If a student has attempted an extra question, answer of the question deserving more marks should be retained and the other answer scored out with a note “ Extra Question ”.
10	No marks to be deducted for the cumulative effect of an error. It should be penalized only once.
11	A full scale of marks _____ (example 0 to 80/70/60/50/40/30 marks as given in Question Paper) has to be used. Please do not hesitate to award full marks if the answer deserves it.
12	Every examiner has to necessarily do evaluation work for full working hours i.e., 8 hours every day and evaluate 20 answer books per day in main subjects and 25 answer books per day in other subjects (Details are given in Spot Guidelines). This is in view of the reduced syllabus and number of questions in question paper.
13	<p>Ensure that you do not make the following common types of errors committed by the Examiner in the past: -</p> <ul style="list-style-type: none"> ● Leaving answer or part thereof unassessed in an answer book. ● Giving more marks for an answer than assigned to it. ● Wrong totalling of marks awarded on an answer. ● Wrong transfer of marks from the inside pages of the answer book to the title page. ● Wrong question wise totalling on the title page. ● Wrong totalling of marks of the two columns on the title page. ● Wrong grand total. ● Marks in words and figures not tallying/not same. ● Wrong transfer of marks from the answer book to online award list. ● Answers marked as correct, but marks not awarded. (Ensure that the right tick mark is correctly and clearly indicated. It should merely be a line. Same is with the X for incorrect answer.) ● Half or a part of answer marked correct and the rest as wrong, but no marks awarded.
14	While evaluating the answer books if the answer is found to be totally incorrect, it should be marked as cross (X) and awarded zero (0) Marks.
15	Any unassessed portion, non-carrying over of marks to the title page, or totalling error detected by the candidate shall damage the prestige of all the personnel engaged in the evaluation work as also of the Board. Hence, in order to uphold the prestige of all concerned, it is again reiterated that the instructions be followed meticulously and judiciously.
16	The Examiners should acquaint themselves with the guidelines given in the “ Guidelines for spot Evaluation ” before starting the actual evaluation.
17	Every Examiner shall also ensure that all the answers are evaluated, marks carried over to the title page, correctly totalled and written in figures and words.
18	The candidates are entitled to obtain photocopy of the Answer Book on request on payment of the prescribed processing fee. All Examiners/Additional Head Examiners/Head Examiners are once again reminded that they must ensure that evaluation is carried out strictly as per value points for each answer as given in the Marking Scheme.

MARKING SCHEME
Secondary School Examination, 2024
INFORMATION TECHNOLOGY (Subject Code–402)
[Paper Code:89]

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.

Note: If a child has attempted more number of questions than asked for, please refer point number 9 (General Instructions).

Q. No.	EXPECTED ANSWER / VALUE POINTS	Marks
SECTION—A		
Q1.	Answer any 4 out of the given 6 questions on Employability Skills. Each question is of <i>one</i> mark.	4×1=4
i)	The filename and filename extension are separated by a _____ . Ans: (B) Dot (.) <i>(1 mark for correct answer)</i>	1
ii)	Which of the following type of communication involves interchanging messages only through images or pictures? Ans: (C) Visual <i>(1 mark for correct answer)</i>	1
iii)	_____ is the ability to identify and manage one’s own emotions, as well as the emotions of others. Ans: (B) Emotional Intelligence <i>(1 mark for correct answer)</i>	1
iv)	_____ is the driving force that pushes us to achieve our goals, feel happy and improve our quality of life. Ans: (D) Self-Motivation <i>(1 mark for correct answer)</i>	1
v)	Which of the following is not an essential quality to become a successful entrepreneur? Ans: (D) Wealthy <i>(1 mark for correct answer)</i>	1
vi)	In total, how many SDGs were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity ? Ans: (C) 17 <i>(1 mark for correct answer)</i>	1

Q2.	Answer any 5 out of the given 6 questions. Each question is of <i>one</i> mark.	5×1=5
i)	Which of the following features allows one to apply a group of formats at the same time ? Ans: (B) Styles <i>(1 mark for correct answer)</i>	1
ii)	In Writer, styles and formatting option is available under _____ menu. Ans: (C) Format <i>(1 mark for correct answer)</i>	1
iii)	Gaurav is creating a report in Writer. The image gets embedded in his document whenever he drags and drops the image and the document size increases. Suggest a way to link the image file instead of embedding it? Ans: (D) Hold down the Ctrl and Shift key while dragging and dropping the image. <i>(1 mark for correct answer)</i>	1
iv)	Resizing a _____ may badly affect the resolution of an image. Ans: (B) Raster Image <i>(1 mark for correct answer)</i>	1
v)	In Writer, you can create your own template in _ way(s). Ans: (B) Two <i>(1 mark for correct answer)</i>	1
vi)	In Writer, _____ function key is used to see the databases while implementing mail merge. Ans: (D) F4 <i>(1 mark for correct answer)</i>	1
Q3.	Answer any 5 out of the given 6 questions. Each question is of <i>one</i> mark.	5×1=5
i)	While consolidating data, a cell range can be named using _____ option. Ans: (B) Define Range <i>(1 mark for correct answer)</i>	1
ii)	Kawal and his friends are working on a Spreadsheet for entering data and updating records. They wish to keep a track of changes. Which of the following options will help in knowing who made the changes and what changes were done in the spreadsheet. Ans: (B) Record Changes <i>(1 mark for correct answer)</i>	1
iii)	_____ is a more elaborate form of Goal Seek. Ans: (D) Solver <i>(1 mark for correct answer)</i>	1
iv)	Macro functions can be written to behave as regular functions by writing a/an _____. Ans: (C) Add-In <i>(1 mark for any correct answer)</i>	1
v)	_____ option of Calc helps in viewing the changes made to a worksheet using original and edited worksheet.	1

	<p>Ans: (C) Edit → Compare Document</p> <p><i>(1 mark for correct answer)</i></p>	
vi)	<p>In Calc, shared workbooks allow:</p> <p>Ans: (D) Adding Text</p> <p><i>(1 mark for correct answer)</i></p>	1
Q4.	<p>Answer any 5 out of the given 6 questions.</p> <p>Each question is of one mark.</p>	5×1=5
i)	<p>In OpenOffice Base, the relationship applied on the tables can be removed with the help of _____ option.</p> <p>Ans: (D) Delete</p> <p><i>(1 mark for correct answer)</i></p>	1
ii)	<p>In SQL, the keyword to display records in ascending order is:</p> <p>Ans: (C) Asc</p> <p><i>(1 mark for correct answer)</i></p>	1
iii)	<p>_____ is a numeric data type which can store Yes/No type values in the form of 0 or 1 in OpenOffice Base table.</p> <p>Ans: (A) Boolean</p> <p><i>(1 mark for correct answer)</i></p>	1
iv)	<p>Which of the following statement retrieves zero or more rows from one or more database tables or database views?</p> <p>Ans: (C) SELECT</p> <p><i>(1 mark for correct answer)</i></p>	1
v)	<p>Roshni has created a table Customer in SQL and wants to store photograph image of every customer under Cust_photo field. Suggest a suitable data type from the options given below.</p> <p>Ans: (C) LONGVARBINARY</p> <p><i>(1 mark for correct answer)</i></p>	1
vi)	<p>By default, all the fields in OpenOffice Base will have _____ datatype.</p> <p>Ans: (C) text (varchar)</p> <p><i>(1 mark for correct answer)</i></p>	1
Q5.	<p>Answer any 5 out of the given 6 questions.</p> <p>Each question is of one mark.</p>	5×1=5
i)	<p>A _____ is a discussion style website similar to an online personal diary, used for creating personal web pages.</p> <p>Ans: (C) Blog</p> <p><i>(1 mark for correct answer)</i></p>	1
ii)	<p>Natasha works as floor manager. She has been assigned a task for conducting regular _____ to ensure safety of life in case of any disaster or emergency by evacuating the place of danger.</p>	1

	<p>Ans: (C) Evacuation Drill</p> <p><i>(1 mark for correct answer)</i></p>	
iii)	<p>_____ is an accessibility feature that assists people who have difficulty using a keyboard or a mouse (or both).</p> <p>Ans: (B) Serial Key</p> <p><i>(1 mark for correct answer)</i></p>	1
iv)	<p>Network in which all computers have equal status is called _____.</p> <p>Ans: (A) Peer to Peer architecture</p> <p><i>(1 mark for correct answer)</i></p>	1
v)	<p>_____ are text files with small pieces of data – like a username and password.</p> <p>Ans: (C) Cookies</p> <p><i>(1 mark for correct answer)</i></p>	1
vi)	<p>DSL stands for_____.</p> <p>Ans: (C) Digital Subscriber Line</p> <p><i>(1 mark for correct answer)</i></p>	1
<p>SECTION - B:</p> <p>(Subjective Type Questions)</p>		
	<p>Answer any 3 out of the given 5 questions on Employability Skills</p> <p>Answer each question in 20 – 30 words.</p>	3x2 = 6
Q6.	<p>How can cultural differences be a barrier to effective communication?</p> <p>Ans:</p> <p>People sometimes make stereotypical assumptions about others based on their cultural background, this leads to difference in opinions and can be a major barrier to effective communication. It helps us in converting our strength into an exceptional talent.</p> <p style="text-align: center;">OR</p> <p>Cultural barriers is when people of different cultures are unable to understand each other's customs, resulting in inconveniences and difficulties, which leads to barriers in effective communication.</p> <p><i>(2 marks for any correct/relevant answer)</i></p>	2
Q7.	<p>Explain any two misconceptions about entrepreneurship.</p> <p>Ans:</p> <p>Misconceptions about entrepreneurship are:</p> <ul style="list-style-type: none"> • Every business idea needs to be unique or special. • A person needs a lot of money to start a business. • Only a person having a big business is an entrepreneur. • Entrepreneurs are born, not made. • Successful entrepreneurs possess innate/extraordinary qualities that cannot be learned. • Entrepreneurs are mainly motivated to get rich. • Entrepreneurs always make profit. <p><i>(2 marks for any two correct/relevant misconception)</i></p>	2

<p>Q8.</p>	<p>Briefly discuss the significance of time management skills in order to succeed in life.</p> <p>Ans:</p> <p>When one is clear on the best use of time, one becomes more focused and productive. Good time management helps in achieving bigger goals, reduces procrastination and increases productivity, as a result more chances of getting success in life.</p> <p style="text-align: center;">OR</p> <p>Time management is an important life skill that helps you make the most of your time without affecting your mental health. It can help you achieve your goals, maintain a healthy work-life balance, and improve your overall productivity.</p> <p style="text-align: center;">OR</p> <p>Time management skills help you reduce stress and prioritise your time. Effective time management clarifies your goals and prioritises your most important tasks. As a result, you have more time to achieve bigger and better results.</p> <p style="text-align: center;"><i>(2 marks for any correct/relevant answer)</i></p>	<p style="text-align: center;">2</p>
<p>Q9.</p>	<p>Very often we hear about spam mails. Explain what are spam mails, and what should be done with such mails.</p> <p>Ans:</p> <p>Spam Mails (Definition)</p> <p>When we get mails from companies who are advertising a product or trying to attract you to their website. Such mails are called spam.</p> <p style="text-align: center;">OR</p> <p>Spam emails also known as junk mails, are unwanted emails that are sent from unknown sources without the recipient's consent. They are often sent for commercial purposes, and can be sent in large volumes.</p> <p>Ways to handle spam mails (any one of the following):</p> <ul style="list-style-type: none"> • Report the email as spam • Block spam email addresses • Use an email alias • Change your email privacy settings • Unsubscribe from unwanted newsletters or mailing lists • Keep your email address private • Use a third-party spam filter • Never respond to spam mails • Delete spam mails on a regular basis <p style="text-align: center;"><i>(1 mark for definition and 1 mark for any correct/relevant way to handle spam mails)</i></p>	<p style="text-align: center;">2</p>
<p>Q10.</p>	<p>Mention any two ways to get clean and affordable energy.</p> <p>Ans:</p> <p>Ways to get clean and affordable energy:</p> <ul style="list-style-type: none"> • Using solar power i.e., power generated using the sun does not cause pollution as it does not require burning of non-renewable fuels, such as coal. • Use of biogas is also an eco-friendly alternative to natural gas. • Wind Energy is a form that uses the power of wind to generate electricity. • Hydropower energy is generated using force of running water. <p style="text-align: center;"><i>(1 mark each for any two correct/relevant answer)</i></p>	<p style="text-align: center;">2</p>
	<p>Answer any 4 out of the given 6 questions in 20 – 30 words.</p>	<p style="text-align: center;">4x2 = 8</p>
<p>Q11.</p>	<p>Write the main steps to group drawing objects in Writer.</p>	<p style="text-align: center;">2</p>

	<p>Ans: To group drawing objects: (i) Select one object, hold down the shift key and select the others which need to be included in the group. (ii) Hover the mouse pointer over one of the objects and choose Format → Group → Group from the new bar or right click and choose Group → Group From the pop-up menu. <i>(2 marks for writing correct steps)</i></p>											
Q12.	<p>What is the purpose of consolidating data in spreadsheets? Discuss briefly. Ans: Data Consolidation allows you to gather together your data from separate worksheets/workbooks into a master worksheet. OR Data Consolidation function takes data from a series of worksheets or workbooks and summarises it into a single worksheet that you can update easily. <i>(2 marks for writing correct/relevant answer)</i></p>	2										
Q13.	<p>Differentiate between LAN and WAN. Ans:</p> <table border="1"> <thead> <tr> <th>LAN</th> <th>WAN</th> </tr> </thead> <tbody> <tr> <td>It stands for Local Area Network</td> <td>It stands for Wide Area Network</td> </tr> <tr> <td>It connects computers and devices in a limited geographical area.</td> <td>It covers a broad area (i.e., any network that links across metropolitan, regional, or national boundaries).</td> </tr> <tr> <td>Example: A network at home, school, computer laboratory, office building, or closely positioned group of buildings.</td> <td>The Internet is the most popular example of WAN.</td> </tr> <tr> <td>It is a smallest network.</td> <td>It is a largest network.</td> </tr> </tbody> </table> <p><i>(2 marks for any two correct/relevant differences)</i></p>	LAN	WAN	It stands for Local Area Network	It stands for Wide Area Network	It connects computers and devices in a limited geographical area.	It covers a broad area (i.e., any network that links across metropolitan, regional, or national boundaries).	Example: A network at home, school, computer laboratory, office building, or closely positioned group of buildings.	The Internet is the most popular example of WAN.	It is a smallest network.	It is a largest network.	2
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It is a smallest network.	It is a largest network.											
Q14.	<p>What are the two parts of a cell reference while referencing data on other sheets? Explain with an example. Ans: The reference has two parts: 1. The sheet name enclosed within single quotes 2. The cell reference/address. Both the parts are separated by a period (.) or exclamatory mark(!) Syntax: =‘SheetName’.CellAddress for example : = ‘Savings Account’ . F3. In this example, Savings Account is the name of the sheet and it is enclosed in single quotes whereas F3 is the cell of this sheet that is being referenced. <i>(2 marks for correct/relevant answer)</i></p>	2										
Q15.	<p>Give any two benefits of creating relationships between tables in a database. Ans: Two benefits are: • Saves time as there is no need to enter the same data in separate tables. • It helps in summarizing data from related tables.</p>	2										

	<ul style="list-style-type: none"> • It reduces data redundancy • It reduces data inconsistency • It maintains data integrity • It allows data sharing among all database users • It allows centralized control of data <p><i>(1 mark each for any two correct/relevant benefits)</i></p>	
Q16.	<p>Mention any two basic fire safety rules to be followed in any organization.</p> <p>Ans:</p> <p>Fire can be prevented using appropriate measures (Any two):</p> <ul style="list-style-type: none"> • Fire escape plans must be installed at proper levels. • Install fire extinguishers. • Conduct regular drills. • Smoke alarms/fire detection system must be placed at proper intervals • Keep workplace a no-smoking zone. • Maintenance of safety equipment must be taken care of regularly. • Provide fire safety training to all staff members. <p><i>(1 mark each for any two correct/relevant rules)</i></p>	2
	Answer any 3 out of the given 5 questions in 50 – 80 words.	3x4=12
Q17.	<p>What is the concept of mail merge in word processing software? Discuss in detail. Also give any two major benefits of using mail merge.</p> <p>Ans:</p> <p>A mail merge is a way to take a letter you've written and send it to a whole bunch of people, personalizing it with information about them so they might think that you typed that letter personally for them. It can also be a quick way to generate labels to be pasted on envelopes.</p> <p>Major benefits of mail usage are as follows:</p> <ul style="list-style-type: none"> • It saves time. • It is fast. • It is an efficient way to communicate with people. • It is an economical way of communication. • Personalized mails can be sent in bulk. • It reduces efforts in writing bulk mails in one go. <p><i>(2 mark each for correct/relevant explanation & 2 marks for any two correct/relevant benefits)</i></p>	2+2
Q18.	<p>Explain four types of hyperlinks that can be applied in spreadsheets.</p> <p>Ans:</p> <p>Four types of hyperlinks are :</p> <ul style="list-style-type: none"> • Internet : the hyperlink points to a web address, normally starting with http:// • Mail and News : the hyperlink opens an email message that is pre-addressed to a particular recipient. • Document : the hyperlink points to a place in either the current worksheet or another existing worksheet. • New document : the hyperlink creates a new worksheet. <p><i>(1/2 mark each for writing any one correct type of hyperlink & 1/2 each for any correct/relevant explanation)</i></p>	4
Q19.	<p>Internet security is of prime concern nowadays. Using strong passwords can lower the risk of security breach on the Internet. Himanshi has just created her first Internet based account. Help her by giving any four general guidelines for managing strong passwords.</p>	4

Ans:

General guidelines for managing strong passwords

- Keep the length of the password at least 12-14 characters if permitted.
- Avoid keeping passwords based on repetition, dictionary words, letter or number sequences, usernames, relative or pet names, personal information etc.
- Include numbers and symbols in passwords.
- Use a combination of capital and lowercase letters.
- Avoid using the same password for multiple sites or purposes.
- Avoid using something that the public or workmates know about your likes or dislikes.
- Use random password generators if possible.
- Example of a strong password: u1vX:,4Hd{]\$.

*(1/2 mark for each name of four datatypes/category and
1/2 mark for each correct/relevant explanation)*

Q20.

In context of OpenOffice Base, explain the concept and significance of the following :

- Forms
- Reports

Ans:

Forms: A database form provides the user a systematic and interactive way of storing information into the database. It is an interface in a user-specified layout that lets users view, enter and change data directly in database objects such as tables.

Reports: A database report is the formatted and presentable result of data retrieved from database objects like tables or queries. A report helps to display the data in a summarized manner. It is used to generate the overall work outcome in a clear format.

(2 marks each for writing correct/relevant explanation)

2+2**Q21.**

Consider the table Product and write SQL queries for the following :

Table : Product

PID	PNAME	PRICE	QUANTITY	CATEGORY
P01	BOARD	10000	2	OFFICE
P02	EYELINER	700	50	MAKEUP
P04	PENCIL	5	500	SCHOOL
P05	LAMP	250	10	DOMESTIC
P08	BEDSHEET	450	45	DOMESTIC
P09	LAPTOP	75000	15	OFFICE

- To display names of all products whose category is “domestic”.
- To display product name and price whose quantity is less than 50.
- To display price and quantity of Laptop.
- To display name and quantity of those products whose price is above 5000.

Ans:

a) SELECT PNAME FROM PRODUCT WHERE CATEGORY = 'DOMESTIC';

4

- b) SELECT PNAME, PRICE FROM PRODUCT WHERE QUANTITY < 50;
c) SELECT PRICE, QUANTITY FROM PRODUCT WHERE PNAME = 'LAPTOP';
d) SELECT PNAME, QUANTITY FROM PRODUCT WHERE PRICE > 5000;

(1/2 mark for each SELECT Clause and 1/2 mark for each WHERE Clause)

Note: Case and Punctuation mark like (" "), (' '), (;) should be ignored.

For Visually Impaired Candidates :

In the context of Database Management System, write a short note on the following :

- (i) Database
- (ii) Table
- (iii) Field
- (iv) Composite Primary Key

Ans:

- (i) Database: It is an integrated/organized collection of data records, files and other objects.

OR

It is an organized collection of data/table.

- (ii) Table: A table is a set of data elements (values) that is organized using a model of vertical columns (which are identified by their name) and horizontal rows.

OR

A table is a collection of rows and columns.

OR

A table stores data in the form of rows and columns.

- (iii) Field (column or attribute): A column is a set of data values of a particular simple type, one for each row of the table. The columns provide the structure according to which the rows are composed.

OR

It is a vertical subset of data which contains data values of a particular type.

OR

A field is a basic unit of data storage in a table.

- (iv) Composite Primary Key: When primary key constraint is applied on one or more columns then it is known as composite Primary Key.

OR

A composite key or composite primary key refers to a combination of two or more attributes (Fields/Columns) that uniquely identifies the tuples (Records/rows) in a relation (Table).

(1 mark each for correct/relevant explanation)
