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Secondary School Term II Examination, 2022

Marking Scheme – INFORMATION TECHNOLOGY (SUBJECT CODE – 402) (PAPER CODE – 89)

General Instructions: -

- 1. 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.
- 2. "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 IPC."
- 3. 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 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, marks should be awarded.
- 4. 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. 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.
- 5. Evaluators will mark ($\sqrt{}$) wherever answer is correct. For wrong answer 'X' be marked. Evaluators will not put right kind of mark while evaluating which gives an impression that answer is correct and no marks are awarded. This is most common mistake which evaluators are committing.
- 6. 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.
- 7. 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.
- 8. If a student has attempted an extra question, answer of the question deserving more marks should be retained and the other answer scored out.
- 9. No marks to be deducted for the cumulative effect of an error. It should be penalized only once.
- 10. A full scale of marks _____ (example 0-25 marks as given in Question Paper) has to be used. Please do not hesitate to award full marks if the answer deserves it.
- 11. Every examiner has to necessarily do evaluation work for full working hours i.e. 8 hours every day and evaluate 30 answer books per day in main subjects and 35 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.
- 12. Ensure that you do not make the following common types of errors committed by the Examiner in the past: -





AB CONCEPTS SAMAJHNA HOGA AASAAN

Jab Student Padhega Educart Books Se



CBSE Class X Books:

- Question Banks & Sample Papers
- NCERT Problem-Solution Exemplars
- Latest Syllabus & Paper Pattern



- 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 a reply.
- 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.
- 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.
- 13. 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.
- 14. 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.
- 15. The Examiners should acquaint themselves with the guidelines given in the Guidelines for spot Evaluation before starting the actual evaluation.
- 16. 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.
- 17. The Board permits candidates to obtain photocopy of the Answer Book on request in an RTI application and also separately as a part of the re-evaluation process on payment of the processing charges.

MARKING SCHEME

Secondary School Examination TERM-II, 2022

INFORMATION TECHNOLOGY (Subject Code-402)

[Paper Code: 89]

Maximum 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 05 marks and has 06 questions on Employability Skills.
 - a) Question numbers 1 to 4 are one mark questions. Attempt any three questions.
 - b) Question numbers 5 and 6 are two marks questions. Attempt any *one* question.
- 4. Section B is of 12 marks and has 12 questions on Subject Specific Skills.
 - a) Question numbers 7 to 12 are one mark questions. Attempt any four questions.
 - b) Question numbers 13 to 18 are two marks questions. Attempt any four questions.
- 5. Section C is of 8 marks and has 3 Competency-based questions:

Question numbers 19 to 21 are four marks questions. Attempt any two questions.

- 6. Do as per the instructions given in the respective sections.
- 7. Marks allotted are mentioned against each section/question.

Q. No.	EXPECTED ANSWER / VALUE POINTS	Marks					
	SECTION—A	3+2=5					
	Answer any 3 questions out of the given 4 questions. Each question is of <i>one</i> mark.	1×3=3					
1.	Name the person who combines factors in a creative manner to generate value for customers and create wealth. Ans: Entrepreneur (I mark for correct answer)	1					
2.	Name the skill that helps any one to lead, guide and supervise people who work for the business. Ans: Entrepreneurial skill / Leadership skill	1					
	(1 mark for any correct answer)						
3.	Name any two elements of nature.	1/2×2=1					
	Ans: Prithvi (Earth), Agni (Fire), Jal (Water), Vaayu (Air), Aakash (Space)						
	(1/2 mark for any one correct answer) OR						
	Soil, Coal, Petrol, Diesel, Minerals, Sunshine, animals, human beings, Plants, Fossil Fuel (1/2 mark for any one relevant answer)						
4.	Give any one method that we can adopt to promote sustainable development.	1					
	Ans: Methods that can be adopted to promote sustainable development are:						
	Protecting and living in harmony with the nature						
	Considering all human beings as equal						
	Promoting good governance						

	Using science and technology responsibly						
	Creating healthy, social and economically viable society						
	Organic farming						
	Vermi-composting						
	Rainwater harvesting						
	Proper use of means or resources						
	Development of Positive Attitude and Holistic Approach Towards Conservation						
	Integrated Socio-Economic Development						
	Development based on People's Participation						
	Limited Development						
	Long-Lasting Development						
	Any one R's (REFUSE, REDUCE, REUSE, RECYCLE, RECOVER AND)						
	REPAIR) OR 1U (UPCYCLE)						
	Any one from 17 Sustainable Development Goals (Like Gender equality, Life on land etc.)						
	(1 mark for any one correct answer)						
	OR (1 mark for any other relevant answer)						
	Answer any 1 questions out of the given 2 questions. Each question is of 2 marks.	2×1=2					
5.	Differentiate between agricultural entrepreneurship and small-scale entrepreneurship with	2					
	one point only.						
	Ans:						
	Agricultural entrepreneurship Small-scale entrepreneurship						
	Agricultural Entrepreneurship can be Small scale entrepreneurship refers to defined as being primarily related to the starting industries in which manufacturing,						
	marketing and production of inputs and trading, providing services, productions						
	products used in agricultural activities. OR are done on a small scale or micro scale. OR						
	Agricultural entrepreneurship means doing Small scale entrepreneurship refers to						
	business related to agricultural products. starting/doing industries/business on a small or micro scale/level.						
	(1 mark each for correct explanation of Agricultural and Small-scale entrepreneurship)						
6.	In our daily life we can contribute to create a sustainable society by following 4Rs and 1U	2					
	of sustainability. Explain any one term out of 4Rs and 1U.						
	of sustainability. Explain any one term out of 4Rs and 1U.						
	of sustainability. Explain any one term out of 4Rs and 1U. Ans: R's of sustainability stands for REFUSE, REDUCE, REUSE, RECYCLE, RECOVER and REPAIR.						
	Ans: R's of sustainability stands for REFUSE, REDUCE, REUSE, RECYCLE, RECOVER						
	Ans: R's of sustainability stands for REFUSE, REDUCE, REUSE, RECYCLE, RECOVER and REPAIR.						
	Ans: R's of sustainability stands for REFUSE, REDUCE, REUSE, RECYCLE, RECOVER and REPAIR. 1U of sustainability stands for UPCYCLE.						
	Ans: R's of sustainability stands for REFUSE, REDUCE, REUSE, RECYCLE, RECOVER and REPAIR. 1U of sustainability stands for UPCYCLE. REFUSE means to stop using products that may harm the environment.						

		1				
	RECYCLE means creating new products from old products. The quality is usually affected and the new product is not of the same quality as the original product.					
	RECOVER means a safe and eco-friendly alternative should be used in place of a thing. For example, using a cloth bag instead of a polythene bag.					
REPAIR means to fix things/products instead of buying new ones.						
	UPCYCLE allows the scope of human skills to get their due. Any product that is not usable can be upcycled with creativity and innovation.					
	OR					
	UPCYCLE means reuse (discarded objects or material) in such a way as to create a product of higher quality or value than the original.					
	(2 mark for correct explanation of any one from REFUSE, REDUCE, REUSE, RECYCLE, RECOVER, REPAIR, UPCYCLE)					
	SECTION—B	4+8=12				
	Answer any 04 questions out of the given 06 questions.	1×4=4				
7.	is an organization which provides you with access to the Internet via a dial-up or direct or wireless connection.	1				
	Ans: Internet Service Provider (ISP) / Name of any ISP (Like BSNL, MTNL, Airtel, Jio					
	etc.)					
	(1 mark for correct answer)					
8.	Name the software or hardware security device that analyzes the network traffic and determine if the traffic should be allowed or not. Ans: Firewall (1 mark for correct answer)	1				
9.	is the immediate assistance provided to the injured to save life and minimize health loss till the proper medical aid/facility is provided.	1				
	Ans: First Aid / School Medical Room					
4 -	(1 mark for correct answer)					
10.	When primary key constraint is applied on one or more column(s), then it is known as	1				
	Ans: Composite Primary Key / Composite key / Primary Key.					
	(1 mark for correct answer)					
11.	A row that represents a single, data item in a table is known as Ans: Record / Tuple / Row	1				
	(1 mark for correct answer)					
12.	Explain the term 'sorting'.	1				
14.	Ans: Sorting means to arrange the data in either ascending/increasing/A-Z order or descending/decreasing/Z-A order.	1				
	(1 mark for correct explanation)					

	_	Answer any 4 questions out of	the given 6 questions.	2×4=	
13.	Ans: Fold	equences, usernames, relative or pet nonclude numbers and symbols in password see capital/upper-case and small/lowed Avoid using the same password for mu	d for creating strong passwords: 4 characters if permitted. petition, dictionary words, letter or number names etc. words if allowed. cr-case letters. altiple sites or purposes. c or workmates know you strongly like or ssible. d special characters		
		(1/2 mark eac	ch for any four rules)		
		(1/2 mark should be	given for correct example)		
44.	 What is the special name given to the discussion style site used by non-technical (or technical users) users for creating personal web pages? Give any two examples of websites that help us to create such discussion style sites for free. Ans: Blog Some of the websites that offer blog service for free are: www.WordPress.com www.blogger.com www.blogsome.com www.blogsome.com etc. (I mark for blog and 1/2 mark each for any two websites) 				
15.	Differen Ans:	tiate between LAN and WAN with tw	vo points only.	2	
	Points	LAN	WAN		
	i	Full Form: Local Area Network	Full Form: Wide Area Network		
	ii	Explanation: A network which connects computers and devices in a limited geographical area.	Explanation: A network which connects computers and devices over a broad /large geographical area.		
	iii	Example: Intranet, any network at Room, Home, School, Computer Lab, Office Building or closely	Example: Internet, any network that links across metropolitan, regional or national boundaries.		

16. Explain any two types of relationship that can be created in tables.

Ans: There are three types of relationships which can be created in tables:

- 1. ONE to ONE
- 2. ONE to MANY or MANY to ONE
- 3. MANY to MANY

One to One Relationship: In this relationship, both the tables must have primary key columns.

OR

In this relationship, primary key column of one table is associated with primary key column of another/associated table.

OR

In this relationship, a record in table A is associated with only one record in table B.

One to Many Relationship: In this relationship, one of the tables must have primary key column. It signifies that one column of primary key table is associated with all the columns of associated table.

OR

In this relationship, one record of parent table is associated with more than one record of another/associated/child table.

OR

In this relationship, one record in table A is associated with several records in table B.

Many to One Relationship: In this relationship, one of the tables must have primary key column. It signifies that all the columns of primary key table are associated with one column of associated table.

OR

In this relationship, more than one record of parent table is associated with one record of another/associated/child table.

OR

In this relationship, several records in table A is associated with one record in table B.

Many to Many Relationship: In this relationship, no table has the primary key column. It signifies that all the columns of primary key table are associated with all the columns of associated table.

OR

In this relationship, a record in table A is associated with several records in table B and vice-versa.

(1 mark each for correct explanation of any two types of relationship)

Note: 1/2 Marks should be awarded for example without explanation.

	Suggestive dia	igram only: (Full	marks should	be awarded)			
		One-to-c	One-to-one: $\begin{pmatrix} 1 \\ 2 \\ 3 \end{pmatrix} \begin{pmatrix} a \\ b \\ c \\ d \end{pmatrix}$				
		Many-to	Many-to-one:				
		One-to-r	nany:	(1 2 3	d b c d		
		Many-to	-many:	(1 2 3	d b c c		
17.	What is the di	fference between	form and repor	ts?			2
	Ans:		-				
	Form: A form	n provides the use	•	•	g information fo	r a database.	
		face in a user spe tabase objects suc	•	-	iew, enter and	change data	
	Reports: A re	eport helps to disp	olay the data in	a s <mark>ummariz</mark> ed n	nanner.		
	_	ed to generate the	OR				
	-		OR	R			
	A report is an	effective way to	organise and su	mmarize the da	ta for viewing o	or printing.	
		(1 mark each fo	r correct exp <mark>la</mark>	nation of Form	and Report)		
18.		y 2 column na	ames/attributes	and their da	ata types from	n a given	2
	table : PLAY	EK	Table: PI	AYER			
	PID	PNAME	RUNS	GENDER	DOB		
	P101	Sachin	13000	M	10/04/2001		
	P102	Kapil	7000	M	12/02/1998		
	P103	Saurabh	12000	M	13/04/2001		
	P104	Virat	12500	M	17/03/2005		
	Ans:						
	Columns	Data Type					
	PID	CHAR / VARC	HAR / TEXT				
	PName	CHAR / VARC	HAR / TEXT				
	Gender	CHAR / VARC	HAR / TEXT				

	Rı	ıns	INTEGER / INT / TINYINT / SMALLINT / MEDIUMINT / BIGINT / NUMBER	
	D	ОВ	DATE / DATETIME	
			(1/2 mark each for any two column names and 1/2 mark each for their data type)	
			SECTION—C	
			(COMPETENCY-BASED QUESTIONS)	
	•		Answer any 2 questions out of the given 3 questions.	4×2=8
19.	from	his unc	much worried when he came to know that someone has withdrawn all money ele's bank account. He was not able to understand how this could happen when iven his ATM card to anyone.	4
	(a)	Sugge	st him a way by which he can be assured that he is doing secured online ction.	
	(b)		a type of software he needs to install in his computer to protect his computer malware?	
	(c)	Help h	nim to understand about phishing.	
	(d)	He als him.	to thinks cookies are harmless. Explain how cookies can also cause harm to	
	Ans (a)	He car certifi bar/U	n be assured that he is doing secured online transaction by checking the digital cate represented as a golden lock/Padlock in the web browser's address RL. OR a check if the website uses https protocol.	
	(b)		rus/Antispyware software can be installed.	
	(c)		ng is the act of acquiring personal/private and sensitive data from personal	
			iters for use in fraudulent activities.	
		1	OR	
		Any v	alid example (like mails / message from unknown persons that may ask for	
		your c	redit / debit card details / Aadhaar Card / Personal Details etc.)	
	(d)		es can cause harm to him as they can be tracked by unauthorized users and ly gain access to his personal information.	
			(1 mark for correct answer in each part)	

- **20.** Due to pandemic everyone was bound to stay at home. But, due to internet the whole world was connected.
 - (a) What is meant by World Wide Web? Also write any two Web browsers name.
 - (b) Explain how data is transferred over internet.

Ans:

(a) World Wide Web is a system of interlinked hypertext documents/webpages accessed via the Internet.

Examples of web browsers are Google Chrome, Mozilla Firefox, Internet Explorer, Microsoft Edge, Netscape Navigator, Operamini, Safari etc.

(1 mark each for correct explanation of World Wide Web)

(1/2 mark each for any two examples of web browser)

- (b) Data is transferred over internet by following steps:
 - Data sent is broken into packets.
 - Each packet is sent from computer to computer until it finds its destination. All packets may not take the same route.
 - At the destination, the packets are examined.
 - If any packets are missing or damaged, a message is sent asking for them to be re-sent. This continues until all packets have been received intact.
 - The packets are now reassembled into their original form.

(1/2 mark each for writing four steps of data transfer)

21. Consider the following table: **STUDENT**

ADMNO	NAME	GRADE	DOB	MARKS	HOUSE	GENDER
1001	RUPAL	9	10/04/2006	76	GREEN	M
1002	RASHMI	9	08/12/2005	87	RED	F
1003	ARNAV	10	25/05/2004	81	GREEN	M
1004	SUMONA	9	23/08/2005	68	RED	F
1005	ARUN	9	16/07/2005	72	GREEN	M
1006	TIA	9	22/09/2005	91	BLUE	F
1007	ROSHAN	10	26/08/2004	89	BLUE	M

Write SQL Commands:

- a) To display the details of all students of GREEN HOUSE.
- b) To increase the marks by 5 whose ADMNO is 1005.
- c) To display the details of all students whose MARKS are less than 80.
- d) Display the list of all students in descending order of MARKS.

Ans:

a) SELECT * FROM STUDENT WHERE HOUSE = "GREEN";

OR

SELECT ADMNO, NAME, GRADE, DOB, MARKS, HOUSE, GENDER FROM STUDENT WHERE HOUSE = "GREEN";

OR

SELECT * FROM STUDENT WHERE HOUSE LIKE "GREEN";

OR

SELECT * FROM STUDENT WHERE HOUSE IN ("GREEN");

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

b) UPDATE STUDENT SET MARKS=MARKS+5 WHERE ADMNO=1005;

OR

UPDATE STUDENT SET MARKS=MARKS+5 WHERE ADMNO IN (1005); (1/2 mark for UPDATE Clause) (1/2 mark for WHERE Clause)

c) SELECT * FROM STUDENT WHERE MARKS <80;

OR

SELECT ADMNO, NAME, GRADE, DOB, MARKS, HOUSE, GENDER FROM STUDENT WHERE MARKS <80;

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

d) SELECT * FROM STUDENT ORDER BY MARKS DESC;

OR

SELECT ADMNO, NAME, GRADE, DOB, MARKS, HOUSE, GENDER FROM STUDENT ORDER BY MARKS DESC;

(1/2 mark for SELECT Clause) (1/2 mark for ORDER BY Clause)

(1 mark each for every correct answer)

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

21.	For V	isually Impaired Students				
	Define the following:					
	a. Database Management System (DBMS)					
	b. Primary key					
	c. Numeric data type					
	d.	Referential integrity				
	Ans:					
	a.	A database management system is a software package with computer programs that				
		controls the creation, maintenance and use of a database.				
	b.	A primary key is a unique value that identifies a row in a table.				
		OR				
	A primary key is a field/column/attribute or set of fields/columns/attributes of					
	which uniquely identifies records/rows/tuples in a table/relation.					
	OR					
		Primary Key = Unique + Not Null				
	c. Numeric data types are numbers stored in database column. The exact numeric					
		data types are INTEGER, INT, TINYINT, SMALLINT, MEDIUMINT, BIGINT,				
		NUMBER, DECIMAL, NUMERIC, FLOAT, REAL, DOUBLE.				
	d.	Referential integrity is used to maintain accuracy and consistency of data in a				
		relationship.				
		OR				
		Referential integrity is a system of rules that a DBMS uses to ensure that				
		relationships between records in related tables are valid.				
		(1 mark for correct answer in each part)				