BUDHA DAL PUBLIC SCHOOL, PATIALA

TERM-II EXAMINATION (SESSION 2024-25) SET:-B

CLASS: - XII, SUBJECT: - INFORMATICS PRACTICES (CODE:- 065)

Time: 3 Hours **Max. Marks: 70**

General Instructions:

1. **This question paper contains five sections, Section A to E.**
2. **All questions are compulsory.**
3. **Section A has 18 questions carrying 01 mark each.**
4. **Section B has 07 Very Short Answer type questions carrying 02 marks each.**
5. **Section C has 05 Short Answer type questions carrying 03 marks each.**
6. **Section D has 02 questions carrying 04 marks each.**
7. **Section E has 03 questions carrying 05 marks each.**
8. **All programming questions are to be answered using Python Language only.**

	SECTION-A	
	Fill in the Blanks:-	
1.	The _____clause lets you arrange the result set in ascending or descending order	1
2.	Two types of MySQL functions are single row functions and _____ functions.	1
3.	Software which usually limits the functionality after a trial period are known a_____.	1
	State Whether the following statements are True or False:-	
4.	DISTINCT option causes a group function to consider only the unique values of the argument expression.	1
5.	COUNT( ) function ignores duplicate and null values while counting the records.	1
6.	E-document becomes legal after it is digitally signed.	1
	Multiple Choice Questions(MCQs):-	
7.	(a) What will be the order of the data being sorted after the execution of given SQL query? SELECT FROM STUDENT ORDER BY ROLL_NO; (i) Custom Sort (ii) Descending (iii) Ascending (iv) None of these	1
8.	Which of the following clauses is used to sort the result set? (i) SORT BY (ii) GROUP BY (iii) ARRANGE BY (iv) ORDER BY	1
9.	If column "Marks" contains the data set (25, 35, 25, 35, 38), what will be the output after the execution of the given query? SELECT DISTINCT (MARKS) FROM STUDENTS; (i) 25,35,25,35,38 (ii) 25,25,35,35,38 (iii) 25,35,38 (iv) 25,25,35,35	1
10.	What SQL statement do we use to find the total number of records present in the table Product? (i) SELECT FROM PRODUCT; (ii) SELECT COUNT(*) FROM PRODUCT; (iii) SELECT FIND (*) FROM PRODUCT; (iv) SELECT SUM() FROM PRODUCT;	1
11.	Which of the following functions is not an aggregate function? (i) ROUND( ) (ii) SUM( ) (iii) COUNT() (iv) AVG( )	1
12.	Which clause in SQL is used to apply a condition on a group? (i) Where (ii) Having (iii) As (iv) On	1
13.	Using someone else's Twitter handle to post something will be termed as: (i) Fraud (ii) Identity theft (iii) Online stealing (iv) Violation	1
14.	Intellectual Property Rights protect the use of information and ideas that are of: (i) Ethical value (ii) Moral value (iii) Social value (iv) Commercial value	1
15.	The term 'Intellectual Property Rights' covers: (i) Copyrights (ii) Trademarks (iii) Patents (iv) All of these	1

16.	Which of the following is not covered under IPR? (i) Music (ii) Insurance (iii) Logo designed (iv) Invention	1
	Q17 and 18 are ASSERTION AND REASONING based questions. Mark the correct choice as a) **Both A and R are true and R is the correct explanation for A** b) **Both A and R are true and R is not the correct explanation for A** c) **A is True but R is False.** d) **A is False but R is True.**	1
17.	Assertion (A): The HAVING clause is used with GROUP BY clause and aggregate function. Reasoning(B): WHERE clause specifies the condition on individual rows or records.	
18.	Assertion (A): Cyber stalking is a form of cybercrime. Reasoning(B): Stealing money from someone's wallet is a type of cybercrime.	1
	SECTION-B	
19.	What is SQL?	2
20.	What is the purpose of GROUP BY claues?	2
21.	What do you understand by 'Privacy of data'?	2
22.	Write two applications of cyber law.	2
23.	What are privacy laws?	2
24.	What do you mean by cyber security?	2
25.	**Consider the string: "Database Management System". Write suitable SQL queries for the following:** I. To extract and display "Manage" from the string. II. Display the position of the first occurrence of "base" in the given string.	2
	SECTION-C	
26.	Differentiate between WHERE and HAVING clause.	3
27.	Describe measures to recycle your e-waste safety.	3
28.	What do you understand by net etiquettes? Explain any two such etiquettes.	3
29.	**Ayesha's family is replacing their old computer with a new one. They decide to throw the old computer in a nearby empty field/plot.** I. Explain any one potential environmental hazard associated with improper e-waste disposal. II. Suggest one responsible way to Ayesha's family for proper disposal oftheir old computer. III. Describe the importance of recycling in e-waste management	3
30.	Write an SQL statement to create a table named STUDENTS, with the following specifications: **Column Name** / **Data Type** / **Key** StudentID / Numeric / Primary Key FirstName / Varchar(20) LastName / Varchar(10) DateOfBirth / Date Percentage / Float(10,2) II. Write SQL Query to insert the following data in the Students Table 1, Supriya, Singh, 2010-08-18, 75.5	3
	SECTION-D	
31	Rahul, who works as a database designer, has developed a database for a bookshop. This database includes a table BOOK whose column (attribute) names are mentioned below: **BCODE:** Shows the unique code for each book.	4

TITLE: Indicates the book's title.

AUTHOR: Specifies the author's name.

PRICE: Lists the cost of the book.

Table: BOOK

BCODE	TITLE	AUTHOR	PRICE
B001	MIDNIGHT'S CHILDREN	SALMAN RUSHDIE	500
B002	THE GOD OF SMALL THINGS	ARUNDHATI ROY	450
B003	A SUITABLE BOY	VIKRAM SETH	600
B004	THE WHITE TIGER	ARAVIND ADIGA	399
B005	TRAIN TO PAKISTAN	KHUSHWANT SINGH	350

I. Write SQL query to display book titles in lowercase.
II. Write SQL query to display the highest price among the books.
III. Write SQL query to display the number of characters in each book title.
IV. Write SQL query to display the Book Code and Price sorted by Price in descending order.

32. What is identity theft? Explain with the help of an example. 4

SECTION-E

33. What do you mean by phishing? Explain with the help of an example. 5

34. Consider the DataFrame df shown below. 5

	MovieID	Title	Year	Rating
0	1	LAGAAN	2001	8.4
1	2	TAARE ZAMEEN PAR	2007	8.5
2	3	3 IDIOTS	2009	8.4
3	4	DANGAL	2016	8.4
4	5	ANDHADHUN	2018	8.3

Write Python statements for the DataFrame df to:
I. Print the first two rows of the DataFrame df.
II. Display titles of all the movies.
III. Remove the column rating.
IV. Display the data of the 'Title' column from indexes 2 to 4 (both included)
V. Rename the column name 'Title' to 'Name'.

35. Write suitable SQL query for the following: 5
I. To display the average score from the test_results column (attribute) in the Exams table
II. To display the last three characters of the registration_number column (attribute) in the Vehicles table. (Note: The registration numbers are stored in the format DL-01-AV-1234)
III. To display the data from the column (attribute) username in the Users table, after eliminating any leading and trailing spaces.
IV. To display the maximum value in the salary column (attribute) of the Employees table.
V. To determine the count of rows in the Suppliers table.