

St. Mary's School, Dwarka
Holiday Homework
Class XII
Subject: Computer Science

Answer the following:

Q1 Write SQL commands for the following queries :

Table: Club

1 * 5 = 5

Coach-ID	CoachName	Age	Sports	date_of_app	Pay	Sex
1	Kukreja	35	Karate	27/03/1996	1000	M
2	Ravina	34	Karate	20/01/1998	1200	F
3	Karan	34	Squash	19/02/1998	2000	M
4	Tarun	33	Basketball	01/01/1998	1500	M
5	Zubin	36	Swimming	12/01/1998	750	M
6	Ketaki	36	Swimming	24/02/1998	800	F
7	Ankita	39	Squash	20/02/1998	2200	F
8	Zareen	37	Karate	22/02/1998	1100	F
9	Kush	41	Swimming	13/01/1998	900	M
10	Shailya	37	Basketball	19/02/1998	1700	M

- a) To show all information about the swimming coaches in the club.
- b) To list the names of all coaches with their date of appointment (date_of_app) in descending order.
- c) To display a report showing coach name, pay, age, and bonus (15% of pay) for all coaches.
- d) To insert a new row in the Club table with ANY relevant data:
- e) Give the output of the following SQL statements:
 - i) Select COUNT(Distinct Sports) from Club;
 - ii) Select Min(Age) from Club where SEX = "F";

Q2 Write SQL commands for the following queries :

1*7=7

FURNITURE

NO	ITEMNAME	TYPE	DATEOFSTOCK PRICE		DISCOUNT
1	White lotus	Double Bed	23/02/02	30000	25
2	Pink feather	Baby cot	20/01/02	7000	20
3	Dolphin	Baby cot	19/02/02	9500	20
4	Decent	Office Table	01/01/02	25000	30
5	Comfort zone	Double Bed	12/01/02	25000	25
6	Donald	Baby cot	24/02/02	6500	15
7	Royal Finish	Office Table	20/02/02	18000	30
8	Royal tiger	Sofa	22/02/02	31000	30
9	Econo sitting	Sofa	13/12/01	9500	25
10	Eating Paradise	Dining Table	19/02/02	11500	25

ARRIVALS

NO	ITEMNAME	TYPE	DATE OF STOCK	PRICE	DISCOUNT
1	Wood Comfort	Double Bed	23/03/03	25000	25
2	Old Fox	Sofa	20/02/03	17000	20
3	Micky	Baby cot	21/02/03	7500	15

- A. To show all information about the Baby cots from the FURNITURE table.
- B. To list the ITEMNAME which are priced at more than 15000 from the FURNITURE table.
- C. To list ITEMNAME and TYPE of those items, in which date of stock is before 22/01/02 from the FURNITURE table in descending of ITEMNAME.
- D. To display ITEMNAME and DATEOFSTOCK of those items, in which the discount percentage is more than 25 from FURNITURE table.
- E. To count the number of items, whose TYPE is "Sofa" from FURNITURE table.
- F. To insert a new row in the ARRIVALS table with the following data:

14, "Valvet touch", "Double bed", {25/03/03}, 25000, 30

- G. Give the output of following SQL statements

Note: Outputs of the above mentioned queries should be based on original data given in both the tables i.e., without considering the insertion done in (f) part of this question. $\frac{1}{2} \times 4 = 2$

1. Select COUNT(distinct TYPE) from FURNITURE;
2. Select MAX(DISCOUNT) from FURNITURE, ARRIVALS;
3. Select AVG(DISCOUNT) from FURNITURE where TYPE="Baby cot";
4. Select SUM(Price) from FURNITURE where DATEOFSTOCK < {12/02/02};

Q3 Write SQL queries for (i) to (vi) and write the outputs for the SQL queries mentioned shown in (g1) to (g4) parts on the basis of tables ITEMS and TRADERS $1 \times 6 = 6$

Table Items

CODE	INAME	QTY	PRICE	COMPANY	TCODE
1001	DIGITAL PAD 12i	120	11000	XENITA	T01
1006	LED SCREEN 40	70	38000	SANTORA	T02
1004	CAR GPS SYSTEM	50	21500	GEOKNOW	T01
1003	DIGITAL CAMERA	160	8000	DIGICLICK	T02
1005	PEN DRIVE 32GB	600	1200	STOREHOME	T03

Table: TRADERS

TCode	TName	CITY
T01	ELECTRONIC SALES	MUMBAI
T03	BUSY STORE CORP	DELHI
T02	DISP HOUSE INC	CHENNAI

- i) To display the details of all the items in the ascending order of item names (i.e. INAME).
- ii) To display item name and price of all those items, whose price is in range of 10000 and 22000 (both values inclusive).
- iii) To display the number of items, which are traded by each trader. The expected output of this query should be:

T01 2

T02 2

T03 1

- iv) To display the price, item name and quantity (i.e. qty) of those items which have quantity more than 150.
- v) To display the names of those traders, who are either from DELHI or from MUMBAI.
- vi) To display the names of the companies and the names of the items in descending order of company names.

$\frac{1}{2} \times 4 = 2$

g1) SELECT MAX(PRICE), MIN(PRICE) FROM ITEMS;

g2) SELECT PRICE*QTY AMOUNT FROM ITEMS WHERE CODE=1004; g3)
SELECT DISTINCT TCODE FROM ITEMS;

g4) SELECT INAME, TNAME FROM ITEMS I, TRADERS T WHERE
I.TCODE=T.TCODE AND QTY<100;

Q4 Research on the topic “IMPORTANCE OF MOBILE APPLICATIONS IN EVERYDAY LIFE”. Find out ten such applications and their use. Prepare a report to justify its importance

Q5 Define the following terms: -

4

- a. Cyber Crime.
- b. Plagiarism
- c. Data Encryption
- d. Digital footprint

Q6 Why are privacy settings of a social networking site so important?

2

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| Q7 | What is a spam? Why has it become a big internet issue? | 2 |
| Q8 | List the safety rules for web browsing. | 2 |
| Q9 | Pharming and Phishing are the examples of potential security issues. Explain. | 2 |
| Q10 | Consider the following python programs and answer the following: | 2*4=8 |
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- a. `N= int(input("Enter number "))`
`sum=0`
`i=1`
`while i<N:`
 `if i%2==0:`
 `sum=sum+i`
 `i=i+1`
`print (sum)`
 i. What is the output when input value is 5?
 ii. What is the output when the input value is 0?
- b. `L=["These","are","a",["few","words"],"that","we","will","use"]`
`AL=L[3:4]`
`BL=L[0::2]`
`print (AL)`
`print (BL)`
- c. `adict={"Bhawna":1,"Sahil":2,"Naman":10,"Rahul":20}`
`temp=0`
`for value in adict.values():`
 `temp=temp+value`
`print(temp)`
- b. `adict={"Bhawna":1,"Sahil":2,"Naman":10,"Rahul":20}`
`temp=""`
`for key in adict:`
 `if temp<key:`
 `temp=key`
`print(temp)`
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11. Write the Python program to do the following: 3*9=27
- Area of triangle is given by the formula: $\sqrt{s(s-a)(s-b)(s-c)}$ where a, b and c are the sides of the triangle and $s=(a+b+c)/2$. Calculate the area of the triangle.
 - To calculate Pearson's Correlation Coefficient from the given set of values
 - That reads a string and checks whether it is a palindrome string or not.
 - To generate a list of elements of Fibonacci Series.
 - To calculate the amount payable after sales discount, which is 12% upto the sales amount of 25000 and 18.5% on amounts above that. There is a sales tax payable (in range 5-12%) at the discounted price
 - To calculate Standard Deviation from the given set of values. The number of entered values should not be less than 5.
 - To calculate average of numbers entered by the user.
 - To read an integer > 1000 and reverse the number.
 - To create a list and search a particular element with its position in the list