



SRI RAMAJAYAM GLOBAL SENIOR SECONDARY CBSE SCHOOL POLUR, TIRUVANNAMALAI-TAMILNADU.

REVISION EXAM-2

STD: XII

MAXIMUM MARKS: 35

SUBJECT: COMPUTER SCIENCE (083)

TIME: 2 HOURS

DATE: 29.03.2022

General Instructions:

- The question paper is divided into 3 sections – A, B and C
- Section A, consists of 7 questions (1-7). Each question carries 2 marks.
- Section B, consists of 3 questions (8-10). Each question carries 3 marks.
- Section C, consists of 3 questions (11-13). Each question carries 4 marks.
- Internal choices have been given for question numbers 7, 8 and 12.

Section -A			
Each question carries 2 marks			
Q. No	Part No.	Question	Marks
1.		Give any two characteristics of queues.	(2)
2.	(i)	(i) Expand the following: PPP , POP3	(1)
	(ii)	Out of the following, which is the fastest wired and wireless medium of transmission? Twisted Pair Cable, Coaxial cable, optical fibre, Radio wave, Ethernet cable.	(1)
3.		Name 4 Data types used to store Numeric data in Databases?	(2)
4.		A resultset is extracted from the Customer table using the cursor object (that has been already created) by giving the following statement. Rec_Data=cursor.fetchall() (a) How many records of the table will be returned by fetchall() method? (b) What will be the datatype of Rec_Data object after the given command is executed?	(2)

5.		<p>Write the output of the queries (a) to (d) based on the table Sportstars, given below:</p> <p>Table: Sportstars</p> <table border="1" data-bbox="381 354 1321 633"> <thead> <tr> <th>Admn_No</th> <th>Name</th> <th>DOB</th> <th>Sport</th> <th>Medals</th> <th>Class</th> </tr> </thead> <tbody> <tr> <td>V1237</td> <td>Vanshika</td> <td>2005-02-19</td> <td>Tennis</td> <td>3</td> <td>11</td> </tr> <tr> <td>S1432</td> <td>Ruhaani</td> <td>2005-09-11</td> <td>Football</td> <td>5</td> <td>12</td> </tr> <tr> <td>SM1781</td> <td>Aalam</td> <td>2005-07-01</td> <td>Cricket</td> <td>4</td> <td>11</td> </tr> <tr> <td>V1935</td> <td>Manan</td> <td>2005-04-07</td> <td>Football</td> <td>6</td> <td>11</td> </tr> <tr> <td>S1276</td> <td>Aarav</td> <td>2005-10-06</td> <td>Tennis</td> <td>4</td> <td>12</td> </tr> <tr> <td>SM1872</td> <td>Rehaan</td> <td>2004-12-11</td> <td>Football</td> <td>3</td> <td>12</td> </tr> </tbody> </table> <p>a) SELECT COUNT(*) FROM Sportstars WHERE Medals>=4; b) SELECT SUM(Medals) FROM Sportstars WHERE Class=12; c) SELECT MAX(DOB) FROM Sportstars; d) SELECT DOB FROM Sportstars WHERE Admn_No LIKE "SM%"</p>	Admn_No	Name	DOB	Sport	Medals	Class	V1237	Vanshika	2005-02-19	Tennis	3	11	S1432	Ruhaani	2005-09-11	Football	5	12	SM1781	Aalam	2005-07-01	Cricket	4	11	V1935	Manan	2005-04-07	Football	6	11	S1276	Aarav	2005-10-06	Tennis	4	12	SM1872	Rehaan	2004-12-11	Football	3	12	(2)																		
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6.	(i)	Which command deletes an entire table, a view of a table or other objects in the database?	(1)																																																												
	(ii)	What are SQL Joins?	(1)																																																												
7		<p>Consider the Table Customers given below:</p> <table border="1" data-bbox="401 1201 1321 1669"> <thead> <tr> <th>ID</th> <th>Name</th> <th>Age</th> <th>City</th> <th>Salary</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Kashika</td> <td>37</td> <td>Jammu</td> <td>80000.00</td> </tr> <tr> <td>2</td> <td>Anupriya</td> <td>35</td> <td>Shimla</td> <td>75000.00</td> </tr> <tr> <td>3</td> <td>Vijayan</td> <td>36</td> <td>Hyderabad</td> <td>65000.00</td> </tr> <tr> <td>4</td> <td>Krishnan</td> <td>35</td> <td>Chennai</td> <td>55000.00</td> </tr> <tr> <td>5</td> <td>Harsh</td> <td>37</td> <td>Gandhinagar</td> <td>85000.00</td> </tr> <tr> <td>6</td> <td>Raisa</td> <td>32</td> <td>Mumbai</td> <td>45000.00</td> </tr> <tr> <td>8</td> <td>Clifford</td> <td>36</td> <td>Chennai</td> <td>65000.00</td> </tr> <tr> <td>9</td> <td>Jaisha</td> <td>36</td> <td>Mumbai</td> <td>85000.00</td> </tr> <tr> <td>10</td> <td>Aseem</td> <td>37</td> <td>Hyderabad</td> <td>75000.00</td> </tr> <tr> <td>11</td> <td>Shona</td> <td>35</td> <td>Hyderabad</td> <td>65000.00</td> </tr> <tr> <td>12</td> <td>Manan</td> <td>38</td> <td>Jammu</td> <td>60000.00</td> </tr> </tbody> </table> <p>(a) Identify the degree and cardinality of the table. (b) Which field should be made the primary key? Justify your answer.</p>	ID	Name	Age	City	Salary	1	Kashika	37	Jammu	80000.00	2	Anupriya	35	Shimla	75000.00	3	Vijayan	36	Hyderabad	65000.00	4	Krishnan	35	Chennai	55000.00	5	Harsh	37	Gandhinagar	85000.00	6	Raisa	32	Mumbai	45000.00	8	Clifford	36	Chennai	65000.00	9	Jaisha	36	Mumbai	85000.00	10	Aseem	37	Hyderabad	75000.00	11	Shona	35	Hyderabad	65000.00	12	Manan	38	Jammu	60000.00	(2)
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(OR)

Write the output of the queries (a) to (d) based on the table SMARTWATCH, given below:

Table: SMARTWATCH

WATCHID	NAME	PRICE	QTY_STORE
W1	Fitbit Versa	21000	100
W2	Apple Watch	55000	150
W3	Garmin Fenix	75000	50
W4	Fitbit Versa	21000	100
W5	Samsung Galaxy	27000	200
W6	Amazfit Watch	17000	100
W7	Fossil Hybrid	15000	50

- a) SELECT * FROM SMARTWATCH WHERE PRICE >= 21000 AND QTY_STORE > 100;
- b) SELECT SUM(QTY_STORE) FROM SMARTWATCH WHERE NAME IN ("Fitbit Versa", "Fossil Hybrid");
- c) SELECT MAX(PRICE) + MIN(PRICE) FROM SMARTWATCH;
- d) SELECT AVG(PRICE) FROM SMARTWATCH;

SECTION – B**Each question carries 3 marks**

8.

Coach Abhishek stores the races and participants in a dictionary. Write a program, with separate user defined functions to perform the following operations:

- ✓ 1 Push the names of the participants of the dictionary onto a stack, where the distance is more than 100.
- ✓ 1 Pop and display the content of the stack. For example:

If the sample content of the dictionary is as follows:

Races = {100:'Varnika', 200:'Jugal', 400:'Kushal', 800:'Minisha'}

The output from the program should be:

Minisha Kushal Jugal

(OR)

Write a function in Python ENQ(Enqueue), where Evenlist is a list of numbers, from which we will enqueue all the even numbers into a queue implemented by using a list. Display the queue if it has at least one element, otherwise display appropriate error message.

(3)

9.	(i)	<p>A table, Students has been created in a database with the following fields:</p> <p>StudentID, NAME, DOB, CITY, MARKS</p> <p>Give the SQL command to change the datatype of CITY from Varchar(30) to Char(30).</p>	(2)																												
	(ii)	<p>Which of the following is a DML command? SELECT...FROM, CREATE TABLE, NSERT, UPDATE</p>	(1)																												
10.		<p>Maniklal Fabrics is creating a database called Stores with a table called City_Store. Write the SQL commands for doing the same.</p> <table border="1" data-bbox="360 774 1345 1020"> <thead> <tr> <th>Store_id</th> <th>INT Primary Key</th> </tr> </thead> <tbody> <tr> <td>Manager</td> <td>Varchar(20)</td> </tr> <tr> <td>Address</td> <td>Varchar(30)</td> </tr> <tr> <td>City</td> <td>Varchar(20)</td> </tr> <tr> <td>City_Code</td> <td>Char(5)</td> </tr> <tr> <td>Last_update</td> <td>Date</td> </tr> </tbody> </table>	Store_id	INT Primary Key	Manager	Varchar(20)	Address	Varchar(30)	City	Varchar(20)	City_Code	Char(5)	Last_update	Date	(3)																
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		<p>Section C Each question carries 4 marks</p>																													
11.		<p>Write the SQL statement to display all the information asked in queries (a-d) based on the tables below:</p> <p style="text-align: center;">SALESPERSON TABLE</p> <table border="1" data-bbox="360 1298 1345 1628"> <thead> <tr> <th>salesperson_id</th> <th>name</th> <th>city</th> <th>incentive</th> </tr> </thead> <tbody> <tr> <td>1001</td> <td>Nitin Jairam</td> <td>Delhi</td> <td>0.12</td> </tr> <tr> <td>1002</td> <td>Gaurav Jha</td> <td>Kolkata</td> <td>0.13</td> </tr> <tr> <td>1007</td> <td>Vinita S</td> <td>Hyderabad</td> <td>0.11</td> </tr> <tr> <td>1003</td> <td>Jockim Lobo</td> <td>Bangalore</td> <td>0.15</td> </tr> <tr> <td>1005</td> <td>Arun Mehta</td> <td>Bhopal</td> <td>0.14</td> </tr> <tr> <td>1006</td> <td>Vinny Noom</td> <td>Mumbai</td> <td>0.12</td> </tr> </tbody> </table>	salesperson_id	name	city	incentive	1001	Nitin Jairam	Delhi	0.12	1002	Gaurav Jha	Kolkata	0.13	1007	Vinita S	Hyderabad	0.11	1003	Jockim Lobo	Bangalore	0.15	1005	Arun Mehta	Bhopal	0.14	1006	Vinny Noom	Mumbai	0.12	(4)
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ORDER TABLE				
order_No	purch_amt	order_date	customer_id	sales person_id
30001	1500	2019-10-15	2002	1003
30002	2400	2019-09-05	2005	1002
30003	2100	2019-11-25	2001	1007
30004	3200	2019-10-07	2006	1003
30005	3520	2019-08-12	2003	1005
30006	2600	2019-03-01	2004	1007
30007	2100	2019-11-25	2007	1001
30008	3200	2019-10-07	2006	1003
30009	3520	2019-08-12	2003	1005
30010	2600	2019-03-01	2001	1007

a) Delete the record from order table where order number is 30009

b) Write an SQL statement to display customer_id and salesperson_id from order table where purch_amount is between 1000 and 2500.

c) Write a query to display all the columns from salesperson sort the result in an ascending order by the name and incentive.

d) Write an SQL statement to display salesperson_id and sum of purch_amount from order table grouped by customer_id.

12.

(i) What is network Topology, explain with examples of topologies.

(ii) (ii) Differentiate between wired and wireless Transmission Media. (2)

(OR)

(i) Define the following terms:
Bandwidth, IP address

(ii) How are Radio Waves and Microwaves different? (2)

13.	<p>National Skill Training Academy has for wings A, B, C, D Distance between various wings are given below:</p> <p>Wing A to Wing B-100m Wing A to Wing C-200m Wing A to Wing D-400m Wing B to Wing C-300m Wing B to Wing D-100m Wing C to Wing D-450m</p> <p>Number of Computers installed at various wings are as follows:</p> <p>Wing A-20 Wing B-150 Wing C-50 Wing D-25</p> <p>(i) Suggest the best wired medium and the cable layout to efficiently connect various wings of National Skill Training Academy.</p> <p>(ii) Name the most suitable wing where the Server should be installed. Justify your answer.</p> <p>(iii) Suggest a device/software and its placement that would provide data security for the Academy.</p> <p>(iv) What will be needed to provide wireless Internet access to all smartphone/laptop users in the Academy?</p>	(4)
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*****All the Best*****