YESWECS

PRACTICE PAPER - 3

Std : XII(CBSE) **Marks : 35**

Date : 03.06.2022 **COMPUTER SCIENCE** **Time : 2 hours.**

General Instructions :

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

		Section-A **Each question caries 2 marks**	
Q. No	**Part No.**	**Question**	**Marks**
1.		What are the differences between Linear and Non-linear data structure?	(2)
2.	(i)	Expand the following: GSM , WiFi	(1)
	(ii)	Arrange the following in descending order. 2Mbps , 10Kbps, 5Gbps, 1Tbps, 1000bps	(1)
3.		Differentiate between Unique and Distinct keywords.	(2)
4.		(a) When we should use commit() in MySQL – Python connectivity? (b) What are the functions used to retrieve data from result set?	(2)
5.		Write output for queries (a) to (d) based on the tables Watches' and Sale given below. **Watches** **Watchid** | **Watch_Name** | **Price** | **Type** | **Qty_Store** W001 | High Time | 10000 | Unisex | 100 W002 | Life Time | 15000 | Ladies | 150 W003 | Wave | 20000 | Gents | 200 W004 | High Fashion | 7000 | Unisex | 250 W004 | Golden Time | 25000 | Gents | 100	(2)

Sale

Watchid	Qty_Sold	Quarter
W001	10	1
W003	5	1
W002	20	2
W003	10	2
W001	15	3
W002	20	3
W005	10	3
W003	15	4

a. SELECT MAX (PRICE), MIN(QTY_STORE) FROM WATCHES;
b. SELECT QUARTER, SUM(QTY SOLD) FROM SALE GROUP BY QUARTER;
c. SELECT WATCH_NAME, PRICE, TYPE FROM WATCHES W, SALE S WHERE W. WATCH1D!=S.WATCHID;
d. SELECT WATCH_NAME, QTYSTORE, SUM (QTY_SOLD), QTY_STORESUM (QTYSOLD) "STOCK" FROM WATCHES W, SALE S WHERE W. WATCHID = S.WATCHID GROUP BY S.WATCHID;

6. (i) Which command is used to select the database? (1)

(ii) What are the commands available in DCL? (1)

7. Consider the following tables CABHUB and CUSTOMER and answer the following questions : (2)

Table : CABHUB

Vcode	VehicleName	Make	Colour	Capacity	Charges
100	Innova	Toyota	WHITE	7	15
102	SX4	Suzuki	BLUE	4	14
104	C Class	Mercedes	RED	4	35
105	A-Star	Suzuki	WHITE	3	14
108	Indigo	Tata	SILVER	3	12

Table : CUSTOMER

Ccode	Cname	Vcode
1	Hemant Sahu	101
2	Raj Lal	108
3	Feroza Shah	105
4	Ketan Dhal	104

a. Identify the suitable field to made as Primary key of CABHUB table..
b. What will be the degree and cardinality of CUSTOMER table?

OR

a. Identify the candidate keys from the CABHUB table.

<table>
<tr><td></td><td></td><td>b. What is the degree and cardinality of CABHUB table after adding three records and deleting two attributes?</td><td></td></tr>
<tr><td></td><td></td><td>Section-B
Each question caries 3 marks</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>8.</td><td></td><td>Write a function in python, MakePush(Package) and MakePop(Package) to add a new Package and delete a Package from a List of Package Description, considering them to act as push and pop operations of the Stack data structure
OR
Write a function in python, Push(Package) and Pop(Package) to add details of employee contain information (Empid, Ename and Salary) in the form of tuple in Package and delete a Package from a List of Package Description, considering them to act as push and pop operations of the Stack data structure</td><td>(3)</td></tr>
<tr><td>9.</td><td>(i)</td><td>Deepika wants to remove all rows from the table BANK. But he needs to maintain the structure of the table. Which command is used to implement the same?</td><td>(1)</td></tr>
<tr><td></td><td>(ii)</td><td>Categorize following commands into DCL and TCL commands?
GRANT, SAVE POINT, ROLL BACK, REVOKE, COMMIT</td><td>(2)</td></tr>
<tr><td>10.</td><td></td><td>Swetha has to create a table named SCHOOL in the database to store the records of various students. The table SCHOOL has the following structure:
Table: SCHOOL
<table>
<tr><td>FIELD NAME</td><td>DATA TYPE</td><td>REMARKS</td></tr>
<tr><td>ROLLNO</td><td>INTEGER</td><td>PRIMARY KEY</td></tr>
<tr><td>SNAME</td><td>CHAR(30)</td><td></td></tr>
<tr><td>AGE</td><td>INTEGER</td><td>DEFAULT 18</td></tr>
<tr><td>CLASSNAME</td><td>INTEGER</td><td>NOT NULL</td></tr>
<tr><td>ADDRESS</td><td>CHAR(30)</td><td></td></tr>
<tr><td>CITY</td><td>VACHAR(20)</td><td></td></tr>
</table>
Help her to complete the task by suggesting appropriate SQL commands.</td><td>(3)</td></tr>
<tr><td></td><td></td><td>Section-C
Each question caries 4 marks</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>11.</td><td></td><td>Consider the following tables SCHOOL and ADMIN and answer this question :</td><td>(4)</td></tr>
</table>

Table : SCHOOL

CODE	TEACHER NAME	SUBJECT	DOJ	PERIODS
1001	Ravi Shankar	English	12/3/2000	24
1009	Priya Rai	Physics	03/09/1998	26
1203	Lisa Anand	English	09/04/2000	27
1045	Yashraj	Maths	24/08/2000	24
1123	Ganan	Physics	16/07/1999	28
1167	Harish B	Chemistry	19/10/1999	27
1215	Umesh	Physics	11/05/1998	22

Table: Admin

Code	Gender	Designation
1001	Male	Vice Principla
1009	Female	Co-ordinator
1203	Female	Co-ordinator
1045	Male	HOD
1123	Male	Senior Teacher
1167	Male	Senior Teacher
1215	Male	HOD

Write SQL statements for the following:

a. To display TEACHERNAME, PERIODS of all teachers whose periods are more than 25.
b. To display all the information from the table SCHOOL in descending order of experience.
c. To display DESIGNATION without dupli¬cate entries from the table ADMIN.
d. To display TEACHERNAME, CODE and corresponding DESIGNATION from tables SCHOOL and ADMIN of Male teachers.

12.	(i)	Give two advantages and two disadvantages of Ring topology OR Define the following terms: Web page , Website	(2)
	(ii)	Differentiate Switch and Router.	(2)
13.		Vidya Senior Secondary Public School in Nainital is setting up the network between its different wings. There are 4 wings named as SENIOR(S), JUNIOR(J), ADMIN(A) and HOSTEL(H).	(4)

Distance between various wings are given below:

Wing A to Wing S	100 m
Wing A to Wing J	200 m
Wing A to Wing H	400 m
Wing S to Wing J	300 m
Wing S to Wing H	100 m
Wing J to Wing H	450 m

Wing	Number of Computers
Wing A	20
Wing S	150
Wing J	50
Wing H	25

a. Suggest a suitable Topology for networking the computers of all wings.

b. Name the most suitable wing where the Server should be installed. Justify your answer.

c. Suggest where all should Hub(s)/Switch(es) be placed in the network.

d. Which communication medium would you suggest to connect this school with its main branch in Delhi ?