KENDRIYA VIDYALAYA SANGATHAN::SILCHAR REGION

PREBOARD EXAMINATION (TERM 2) - 2022

CLASS – XII   SUBJECT: COMPUTER SCIENCE (083)

Maximum Marks: 35   *Duration: 2 Hrs*

General Instructions:

The question paper is divided into 3 Sections - A, B and C.

Section A, consists of 07 Questions (1-7). Each question carries 2 Marks.

Section B, consists of 03 questions (8-10). Each question carries 3 marks.

Section C, consists of 03 questions (11-13). Each question carries 4 marks.

Internal choices have been given for question numbers 7, 8 and 12.

SECTION (A)

This section consists of 07 Questions (1 to 7).

Each question carries 2 Marks.

Sl. No.	Questions	Marks
1.	Write down the full forms of below. a) IMAP b) SLIP	01
	What is an IP Address?	01
2.	What is a stack and what are its applications?	02
3.	i) What do mean by Cardinality and Degree of a table in RDBMS?	01
	ii) Which function is used to connect python with MySQL databases?	01
4.	i) Which SQL command is used to change or make a database active?	01
	ii) Which SQL command is used to modify tuples of a relation?	01
5.	What is an attribute and tuple of a table?	02
6.		02

Table: Stationery

StId	StationeryName	Company	Price
DP01	Dot Pen	Luxor	10
PL02	Pencil	Natraj	6
ER05	Eraser	Natraj	3
PL01	Pencil	Camelin	5
GP02	Gel Pen	Montex	15

Write output for the SQL Queries based on a table Stationery

	i) SELECT Company, MAX(Price), MIN(Price), COUNT(*) FROM Stationery GROUP BY Company; ii) SELECT StationeryName, Price*3 as 'Total Price' FROM Stationery;	
7.	Siya has to create a database named ORACLENK in MYSQL. She now needs to create a table named STMASTER in the database to store the records of students of her school. The table STMASTER has the following structure: Table Name: STMASTER	02

FIELD NAME	DATATYPE	CONSTRAINTS
STID	INTEGER	PRIMARY KEY
STUDENTNAME	VARCHAR(30)	
DATE OF BIRTH	DATE	
GENDER	CHAR(1)	
FEE	DECIMAL	
STATUS	VARCHAR(6)	

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OR

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What is difference between Delete and Drop Commands?

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SECTION (B)

This section consists of 03 Questions (8 to 10).

Each question carries 3 Marks.

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8.	Write AddNew (Book) and Remove(Book) methods in Python to add a new Book and Remove a Book from a List of Books Considering them to act as PUSH and POP operations of the data structure Stack? OR Write a program to implement the stack using list.	03
9.	i) What do you mean by Domain in terms of DBMS? ii) What are the main differences between Primary Key and Unique Key?	01 02

10.	The given program is used to connect with MySQL abd show the name of the all the record from the table "stmaster" from the database "oraclenk". You are required to complete the statements so that the code can be executed properly.
	
	    import _____.connector__pymysql
	
	    dbcon=pymysql._____(host="localhost", user="root",
	
	    _____="sia@1928")
	
	    if dbcon.isconnected()==False
	
	        print("Error in establishing connection:")
	
	    cur=dbcon._____()
	
	    query="select * from stmaster"
		03

```
cur.execute(_____)

resultset=cur.fetchmany(3)

for row in resultset:

        print(row)

dbcon._____()
```

SECTION (C)

This section consists of 03 Questions (11 to 13).
Each question carries 4 Marks.

| 11 | Write SQL commands for the queries based on tables COMPANY and CUSTOMER. | 4 |

Table: COMPANY

CID	NAME	CITY	PRODUCTNAME
111	Sony	Delhi	TV
222	Nokia	Mumbai	Mobile
333	Onida	Delhi	TV
444	Sony	Mumbai	Mobile
555	Blackberry	Madras	Mobile
666	Dell	Delhi	Laptop

CUSTOMER

CUSTID	NAME	PRICE	QTY	CID
101	Rahul Sharma	70000	20	222
102	Deepak Kumar	50000	10	666
103	Mohan Kumar	30000	5	111
104	Suchaye Dev	35000	3	333
105	Neha Soni	25000	7	444
106	Siya Singh	20000	5	333
107	Arjun Singh	50000	15	666

i)   To display those company name which are having price less than 30000.

ii)   To display the name of the companies in reverse alphabetical order.

iii)   To increase the price by 1000 for those customer whose name starts with 'S'

iv)   To add one more column totalprice with decimal(10,2) to the table customer

| 12. | i) What do you mean network topology? Write two examples also. | 02 |

Or

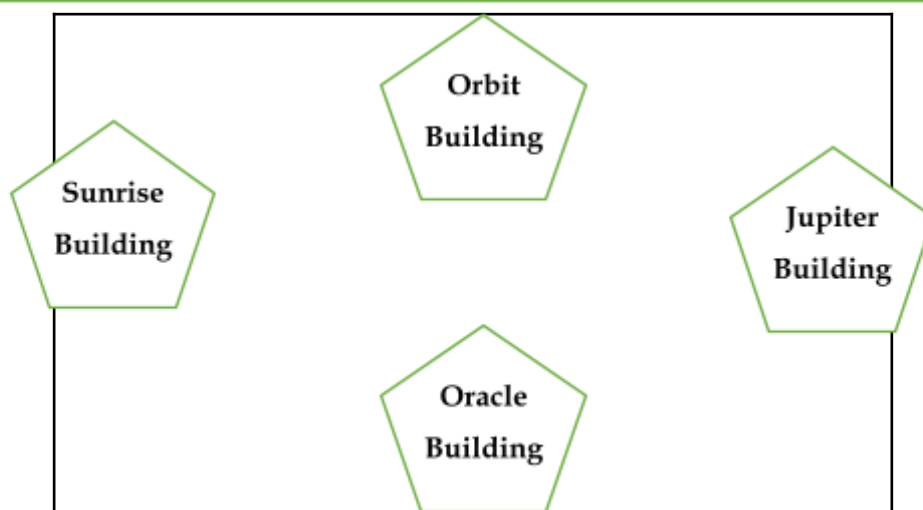a) Identify the Protocol, Domain Name and document in the given URL.

b) *What is the use of ping command?*

ii) *What are the differences between Circuit Switching Technique and Packet Switching Technique?*	02

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Or

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Give two advantages and two disadvantages of star topology

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13. *S3 Edutech has set up its new center at Kamla Nagar for its office and web based activities. The company compound has 4 buildings as shown in the diagram below:*   **04**

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Distance between various buildings.

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Jupiter Building to Orbit Building	*50 Mtrs*
Orbit Building to Oracle Building	*85Mtrs.*
Oracle Building to Sunrise Building	*25 Mtrs.*
Sunrise Building to Jupiter Building	*170 Mtrs.*
Jupiter Building to Oracle Building	*125 Mtrs.*
Orbit Building to Sunrise Building	*45Mtrs.*

Number of Computers in each of the buildings is follows:	
Jupiter Building	*30*
Orbit Building	*150*
Oracle Building	*15*
Sunrise Building	*35*

i) *Suggest a cable layout of connections between the buildings.*

ii) *Suggest the most suitable place (i.e. building) to house the server of this organisation with a suitable reason*

iii) *Suggest the placement of the following devices with justification:*

    a. *Internet Connecting Device/Modem*

    b. *Switch*

| | iv) | *The organisation is planning to link its sale counter situated in various parts of the same city, which type of network out of LAN, MAN or WAN will be formed? Justify your answer.* | |