Solution Sample paper- 09

Q.1	False 2**2**3 = 256 and (2**2)**3 = 64 In Python, Associativity of ** operators is from Right to Left. For other operator it is from Left to Right
Q.2	c. 18
Q.3	(c) ‘a’
Q.4	d)**
Q.5	d) 4map
Q.6	b) random
Q.7	[ ] Empty List.
Q.8	d) Server
Q.9	c) flush()
Q.10	b) Stop
Q.11	(a) SMTP,POP
Q.12	b) ALTER
Q.13	a. read()
Q.14	a. 0 0 Mean From beginning of File, 1-From Current Location of Pointer, 2- for End of file
Q.15	c. (comma) ,
Q.16	(b) commit()
Q.17	(a) Both A and R are true and R is the correct explanation for A
Q.18	(a) Both A and R are true and R is the correct explanation for A
Q.19	*The cookie is a small file stored on the user’s computer * Browser stores the message in this small file to keep track of visitors. e.g. to keep user information like username, surfing habits , server settings & type of the browser etc. ***** When the data is collected , the web server places the cookie (file) on the user’s hard drive * If the user visits the site again, The server retrieves the information from the file, then uses it to identify the visitor. <u>Advantages:</u> • They are stored on the user’s computer. So, no extra burden on the server • Cookies are light in size. So, They occupy less memory • Session cookies: These cookies expire when the browser session ends. • Persistent cookies: These cookies persist a much longer period of time for days or years • If server crashes, the cookies are still available. <u>Dis-advantages:</u> • The cookies are not secure as they are store information in form of text. • No sensitive information should be stored in cookies. • Anyone can open & tamper with the cookies. • The main drawback is the privacy for most users. • The third parties can access the information stored by these cookies. • A lot of security holes may be there in different browsers.

Q.20

Client Side Scripting	Server Side Scripting
Web browsers execute client-side scripting	Web servers are used to execute server-side scripting.
It is used when browsers have all code	They are basically used to create dynamic pages
Source code is used to transfer from webserver to user’s computer over the internet and run directly on browsers	A server-side environment that runs on a scripting language is a web server
It cannot be basically used to connect to databases on a web server	When you need to store and retrieve information a database will be used to contain data
Source code is visible to the user	It is used to require to download plugins
There are many advantages linked with this like faster. response times, a more interactive application	In this load times are generally faster than client-side scripting
No need of interaction with the server	It can use huge resources of the server
HTML, CSS, and java script are used	PHP, Python, Java, Ruby are used.

Q.21

(a) 'pORMI'

(b) 11

Q.22

DDL Commands: Data Definition Language

➔ It is related to structure of Table
➔ It belongs to Creation, Modification and deletion of Table and its structure
➔ It can used to enforce the standards (constraints) on database.
➔ Example: CREATE, ALTER, MODIFY and DROP

DML commands: Data Manipulation Language

➔ It is related to stored data (record) in the table.
➔ It belongs to Insertion, Updation, Selection and updation of records in table.
➔ The primary work of DML is to create various types of reports as per requirement.
➔ Example: INSERT, SELECT, UPDATE and DELETE

Q.23

(a) (i) WLAN: Wireless Local Area Network (ii) WWW: World Wide Web

(b) **Hub:**

* It is a network device that used to connect the many computers and devices over the network.
* The hub has numerous ports. If a packet reaches at one port, it is copied to the other ports.
* A network hub has not intelligent device
* It broadcast all network data across each and every connection.

Active Hub:

- It is able to monitor the data sent to the connected devices
- it checks the data to be sent and decides which packet to send first
- It has the ability to fix the damaged packets when packets are sending
-

Passive Hub:

- Simply, it accepts the packet over a port and circulates it to all ports
- It cannot monitor the data sent to the connected devices
- It only helps to make the physical network without intelligence.

Intelligent Hub:

- It is a little smarter than passive and active hubs
- It can help to analyze the problem in the network and resolve them
- It gives better performance for the local area network
- If any problem is detected with any physical device, it is able to detect this problem easily.

Q.24 250 300 **OR** 50#5

Q.25

PRIMARY KEY CONSTRAINT	**UNIQUE CONSTRAINT**
1. Only one Primary key can be created on a table.	1. More than one UNIQUE Constraints can be added to a table.
2. Primary key used for foreign key and maintain for referential integrity in multiple table	2. UNIQUE Constraint can't use as foreign key and cannot maintain for referential integrity in multiple table
3. We cannot insert null values in the column which is defined as PRIMARY KEY.	3. We can insert null values in the column having a UNIQUE constraint.
In Employee Table, Emp_ID may be Primary Key	In Employee Table, Designation may be UNIQUE

OR

WHERE Clause	**HAVING Clause**
It the clause to apply the criteria (Condition) in SQL.	It the clause to apply the criteria (Condition) with GROUP BY clause in SQL.
It take place after SELECT statement	It take place after GROUP BY statement

Example:
SELECT * FROM Employee
WHERE City LIKE 'A%' ;
	Example:
	SELECT * FROM Employee
	GROUP BY City
	HAVING Class = 'XII' ;

YES, We can use WHERE and HAVING together in a query.

Q.26 (a) What will be the output of the following statement?

SELECT * FROM STORE JOIN SUPPLIERS ON STORE.Scode = SUPPLIERS.Scode;

ItemNo	Item	Scode	Qty	Rate	LastBuy	Sname .
2002	Gel Pen Premium	21	150	12	24-Feb 1	Premium Stationers
2006	Gel Pen Classic	21	250	20	11-Mar 09	Premium Stationers
2003	Ball Pen 0.25	22	50	25	01-Feb 10	Tetra Supply
2001	Eraser Small	22	220	6	19-Jan 09	Tetra Supply
2004	Eraser Big	22	110	8	02-Dec 0	Tetra Supply
2005	Sharpner Classic	23	60	8	31-Jun 09	Soft Plastics

(B)

(i) **DISTINCT City**

Delhi
Mumbai
Bangalore

(ii)

ItemName	MAX(Price)	Count(*)
Personal Computer	37000	3
Laptop	57000	2

(iii)

CustomerName	Manufacturer
K Agarwal	ABC
H Singh	XYZ
R Pandey	COMP
N Roy	PQR

```
(iv)  ItemName                      Price*100
      Personal Computer              3500000
      Laptop                         5500000
```

Q.27

```
def count_India():
   f=open("INDIA.TXT",'rt')
   rec=f.read()
   words=rec.split()
   count=0
   for w in words:
      if(w=="India" or w=="INDIA"):
         count+=1
   print("India word Found at time: ",count)
```

OR

```
def BIGLINES():
   f=open("CONTENT.TXT",'rt')
   lines=f.readlines()
   for line in lines:
      if(len(line)>20):
         print(line)
```

Q.28

```
(i)   DISTINCT SenderCity            (ii)   A.SenderName       B.RecName
      New Delhi                             No Record Found OR Empty RecordSet   Or Zero Record
      Mumbai
(iii) RecName               RecAddress
      S Mahajan             116, A Vihar
      S Tripathy            13, B1 D, Mayur Vihar
(iv)  RecID           RecName
      MU02            S Mahajan
      ND50            S Tripathy
```

Q.29

```
def  SwitchOver(Val):
   for n in range(0,len(Val)-2,2):
      Val[n],Val[n+1]=Val[n+1],Val[n]
   print("After Swiching: ",Val)

V=[12,13,14,15,16,17]
print("Before switching: ",V)
SwitchOver(V)
```

Q.30

```
def PushNV(N):
   NoVowel=[]
   Vowel=0
   for word in N:
      for ch in word:
         if(ch in "aeiouAEIOU"):
            Vowel=1
      if(Vowel==0):
         NoVowel.append(word)
      Vowel=0
   while(len(NoVowel)>0):
      print(NoVowel.pop(), end="  ")
   else:
      print("Empty NoVowel List")

All=[]
for n in range(5):
   s=input("Enter a String: ")
   All.append(s)
PushNV(All)
```

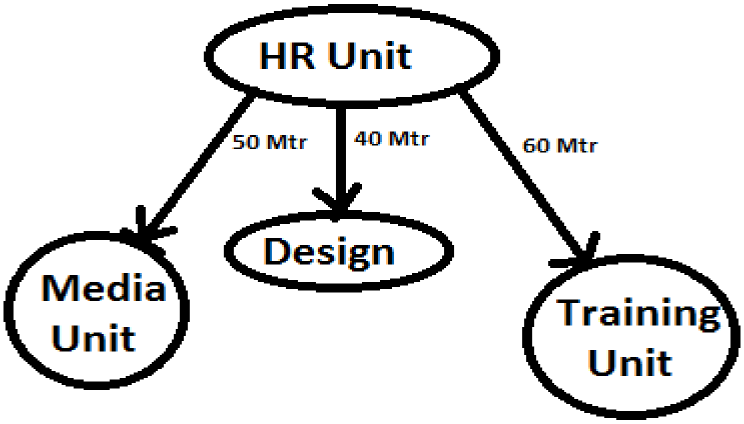
OR --------------------------------

```
def Push3_5(N):
   Only3_5=[]
   for num in N:
      if(num%3==0 or num%5==0):
         Only3_5.append(num)
   while(len(Only3_5)>0):
      print(Only3_5.pop(), end="  ")
   else:
      print("Empty Only3_5 List")

NUM=[]
for i in range(5):
   n=int(input("Enter an Integer Number : "))
   NUM.append(n)
Push3_5(NUM)
```

Q.31 (i) Server will be established at “HR Unit” because there are maximum number of computers.

(ii) Cable Layout



(iii) Switch

(iv) Ethernet Cable

(v) SIP (Session Initiative Protocol), H.323

<u>(Important: Frequently asked question about the protocols of following categories)</u>
Voice Conferencing Protocol: VoIP: Voice Over Protocol
Chat / Text Conferencing Protocol: IRC (Internet Relay Chat)
Video Conferencing Protocol: SIP, H.323

Q.32 (a) 5#8#5#4#

(b) Statement 1: bd1.cursor()
Statement 2: sql= ”DELETE FROM category WHERE name = ‘Stockable’ ”
Statement 3: db1.commit()

OR ---------------------------------

(a) pYTHOnN#.

(b)

Statement 1: import mysql.connector as ms
Statement 2: mycursor.execute(“SELECT * FROM teacher WHERE Date_Retire=’2022-12-31’)
Statement 3: mycursor.fetchall()

Q.33

‘w’ Mode	**‘a’ mode**
➔ ‘w’ stand for Write Mode of File ➔ If file already existed, it will delete the existing content of file and create new file always. ➔ If file not existed, it will create new file always. ➔ File pointer will set at the Beginning Of File **(BOF)** ➔	➔ ‘a’ stand for Append mode of File ➔ It opens file in **Append mode** if file already exist ➔ It opens **new file** in Write mode if file not already exist ➔ If file existed then file pointer set at the End Of File **(EOF)** ➔ If file not existed then file pointer set at the Beginning Of File **(BOF)** ➔ In Append mode, existing data of file never delete and new data add at the end of file.

```
import csv
def addCsvFile(UserName,Password):
   f=open('login.csv','w')
   field=[UserName,Password]
   writ=csv.writer(f)
   writ.writerow(field)
   f.close()
   print("Successfully Added")

def checkDetails(UserName,Password):
   f=open('login.csv','r')
   rea=csv.reader(f)
   if(rea[0]==UserName and rea[1]==Password):
      print("Correct Login Credentials",rea[0], " and ", rea[1])
      return(True)
   else:
      print("Wrong Login Credentials")
      return(False)
   f.close()

UserName=input("Enter User ID: ")
Password=input("Enter Password: ")
addCsvFile(UserName,Password)
status=checkDetails(UserName,Password)
print(status)
```

OR ------------------------

Name the methods used to read and write the data in a binary file.

Read data: pickle.load(file pointer)

Write data: pickle.dump(data, file pointer)

```
import csv
def insertData():
   f=open('customerData.csv','w')
   cname=input("Enter Name: ")
   mobile=int(input("Enter Mobile: "))
   dop=input("Enter date of purchase: ")
   item=input("Enter quantity purchased: ")
   field=[cname,mobile,dop,item]
   writ=csv.writer(f)
   writ.writerow(field)
   f.close()

def frequency(name):
   f=open('login.csv','r')
   rea=csv.reader(f)
   count=0
   for rec in rea:
      if(rec[0]==cname):
         count+=1
   print("Total items purchased",count)
   f.close()

insertData()
frequency('Ajay')
```

Q.34

(i) Candidate Key: No.

(ii) Degree: 7 Cardinality: 10

(iii) (a) DELETE FROM hospital WHERE name LIKE ‘ Z%’ ;

(b). UPDATE hospital SET Charges=1000 WHERE name=’Ankita’ and Charges=10000;

OR ------------------------

(iii) (a) DESC hospital;

(b). UPDATE hospital SET Age=Age+2;

Q.35

(a) Line-1: with open(“student.dat”,’wb’) as fh:

(b) Line-2: pickle.dump(Stul, fh)

(c) Line-3: with open(“student.dat”,’rb’) as fin:

(d) Line-4: Rstu=pickle.load(fin)