

**Sample Question Paper - 2021**

**Computer Science – 083**

**MARKING SCHEME**

**Maximum Marks: 70**

**Time Allowed: 3 hours**

<b>Part – A</b>		
<b>Section - I</b>		
1	b) True	1
2	[6,82,5]	1
3	Comma Separated Value	1
4	c) **	1
5	b) T[2]= -29 (as tuple is immutable)	1
6	Day={1:'monday',2:'tuesday',3:'wednesday'}	1
7	30	
8	abs()	1
9	SMTP	1
10	Cyber Stalking	1
11	ORDER BY	1
12	To check if the column has null value / no value	1
13	SUM / AVG / COUNT / MAX / MIN	1
14	b) ALTER	1
15	Microwave / Radio wave	1
16	d. List	1
17	puterSc	1
18	SHOW TABLES	1
19	Wireless Fidelity	1
20	(c) Primary Key	1
21	Bps, Kbps, Mbps, Gbps, Tbps	1
<b>Part – A</b>		
<b>Section - II</b>		
22	(a) ItemNo	1
	(b) Degree = 4 Cardinality = 7	1
	(c) INSERT INTO store (ItemNo,ItemName,Score) VALUES(2010, "Note Book",25);	1
	(d) DROP TABLE store;	1
	(e) Describe Store;	1
23	(a) Line 1 : csv	1
	(b) Line 2 : a	1
	(c) Line 3 : reader	1
	(d) Line 4 : close()	1

	(e) Line 5 : Arjun 123@456 Arunima aru@nima Frieda myname@FRD	1
	<b>Part – B</b>	
24	a) 13 b) False	2
25	<p>Viruses require an active host program or an already-infected and active operating system in order for viruses to run, cause damage and infect other executable files or documents Worms are stand-alone malicious programs that can self-replicate.</p> <p style="text-align: center;"><b>OR</b></p> <p><b>Web Browser</b> : A web browser is a software application for accessing information on the World Wide Web. When a user requests a web page from a particular website, the web browser retrieves the necessary content from a web server and then displays the page on the user's device.</p> <p><b>Web Server</b> : A web server is a computer that runs websites. The basic objective of the web server is to store, process and deliver web pages to the users. This intercommunication is done using Hypertext Transfer Protocol (HTTP).</p> <p>Popular web browsers : Google Chrome, Mozilla Firefox, Internet Explorer etc</p>	2
26	<p>a. SMTP - Simple Mail Transfer Protocol b. XML - eXtensible Markup Language c. LAN – Local Area Network d. IPR – Intellectual Property Rights</p>	2
27	<p>The list of identifiers used in a function call is called actual parameter(s) whereas the list of parameters used in the function definition is called formal parameter(s).</p> <p>Actual parameter may be value / variable or expression. Formal parameter is an identifier.</p> <p>Example:</p> <pre>def area(side):           # line 1     return side*side;  print(area(5))           # line 2</pre> <p>In line 1, side is the formal parameter and in line 2, while invoking area() function, the value 5 is the actual parameter.</p>	2

	<p>A formal parameter, i.e. a parameter, is in the <i>function definition</i>. An actual parameter, i.e. an argument, is in a <i>function call</i>.</p> <p style="text-align: center;"><b>OR</b></p> <p>Use of global key word:</p> <p>In Python, global keyword allows the programmer to modify the variable outside the current scope. It is used to create a global variable and make changes to the variable in local context. A variable declared inside a function is by default local and a variable declared outside the function is global by default. The keyword global is written inside the function to use its global value. Outside the function, global keyword has no effect.</p> <p>Example</p> <pre>c = 10 # global variable def add():     global c     c = c + 2 # global value of c is incremented by 2     print("Inside add():", c)  add() c=15 print("In main:", c)</pre> <p>output: Inside add() : 12 In main: 15</p>	
28	<p><b>CORRECTED CODE:</b></p> <pre>Value=30 for VAL in range(0,Value):_           # Error 1     if val%4==0:                       # Error 2         print (VAL*4)     elif val%5==0:                     # Error 3         print (VAL+3)     else:                               # Error 4         print(VAL+10)</pre>	2
29	<p>OUTPUT: (ii)</p> <p>Maximum value of Lower: 3</p> <p>Maximum value of Upper: 4</p>	2
30	<p>A table may have more than one such attribute/group of attributes that identifies a tuple uniquely, all such attribute(s) are known as Candidate Keys.</p>	2

	<p>Table:Item</p> <table border="1"> <thead> <tr> <th>Ino</th> <th>Item</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td>I01</td> <td>Pen</td> <td>500</td> </tr> <tr> <td>I02</td> <td>Pencil</td> <td>700</td> </tr> <tr> <td>I04</td> <td>CD</td> <td>500</td> </tr> <tr> <td>I09</td> <td></td> <td>700</td> </tr> <tr> <td>I05</td> <td>Eraser</td> <td>300</td> </tr> <tr> <td>I03</td> <td>Duster</td> <td>200</td> </tr> </tbody> </table> <p>In the above table Item, ItemNo can be a candidate key</p>	Ino	Item	Qty	I01	Pen	500	I02	Pencil	700	I04	CD	500	I09		700	I05	Eraser	300	I03	Duster	200	
Ino	Item	Qty																					
I01	Pen	500																					
I02	Pencil	700																					
I04	CD	500																					
I09		700																					
I05	Eraser	300																					
I03	Duster	200																					
31	<p>fetchall() fetches all the rows of a query result. An empty list is returned if there is no record to fetch the cursor.</p> <p>fetchone() method returns one row or a single record at a time. It will return None if no more rows / records are available.</p> <p>Any example.</p>	2																					
32	<p>DDL – Data Definition Language</p> <p>DML – Data Manipulation Language</p> <p>Any two out of INSERT, DELETE, UPDATE</p>	2																					
33	<p><b>OUTPUT : fUNnpYTHON</b></p>	2																					
34	<pre>def LShift(Arr,n):     L=len(Arr)     for x in range(0,n):         y=Arr[0]         for i in range(0,L-1):             Arr[i]=Arr[i+1]         Arr[L-1]=y     print(Arr)</pre> <p><b>Note : Using of any correct code giving the same result is also accepted.</b></p>	3																					
35	<pre>def displayMeMy():     num=0     f=open("story.txt","rt")     N=f.read()     M=N.split()     for x in M:         if x=="Me" or x=="My":             print(x)             num=num+1     f.close()     print("Count of Me/My in file:",num)</pre>	3																					

OR

```
def count_A_M():  
    f=open("story.txt","r")  
    A,M=0,0  
    r=f.read()  
    for x in r:  
        if x[0]=="A" or x[0]=="a" :  
            A=A+1  
        elif x[0]=="M" or x[0]=="m":  
            M=M+1  
    f.close()  
    print("A or a: ",A)  
    print("M or m: ",M)
```

**Note : Using of any correct code giving the same result is also accepted.**

36 **OUTPUT:**

i.

Department	Count(*)
History	3
Computer Sc	2
Mathematics	3

ii. Max - 31/07/2018 or 2018-07-31 Min- 05/09/2007 or 2007-09-05

iii.

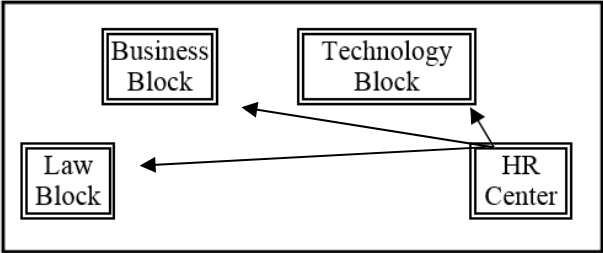
name	Department	Place
Jugal	Computer Sc	Delhi
Shiv Om	Computer Sc	Delhi

3

37 **ANSWER: (Using of any correct code giving the same result is also accepted.)**

```
def PUSH(Arr,value):  
    s=[]  
    for x in range(0,len(Arr)):  
        if Arr[x]%5==0:  
            s.append(Arr[x])  
    if len(s)==0:
```

3

	<pre> print("Empty Stack") else:     print(s)  OR  def popStack(st) :     # If stack is empty     if len(st)==0:         print("Underflow")     else:         L = len(st)         val=st[L-1]         print(val)         st.pop(L-1) </pre>	
38	<p>a. Most suitable place to install the server is HR center, as this center has maximum number of computers.</p> <p><b>b.</b></p>  <pre> graph TD     HR[HR Center] --&gt; Business[Business Block]     HR --&gt; Technology[Technology Block]     HR --&gt; Law[Law Block] </pre> <p>c. Switch</p> <p>d. Repeater may be placed when the distance between 2 buildings is more than 70 meter.</p> <p>e. WAN, as the given distance is more than the range of LAN and MAN.</p>	5
39	<p>i. SELECT * FROM teacher WHERE department= "History";</p> <p>ii. SELECT name FROM teacher WHERE department= "Mathematics" AND gender= "F";</p> <p>iii. SELECT name FROM teacher ORDER BY date_of_join;</p> <p>iv. SELECT name, salary, age FROM teacher WHERE gender='M';</p> <p>v. SELECT name, salary*0.1 AS Bonus FROM teacher;</p>	5

40

**ANSWER: (Using of any correct code giving the same result is also accepted.)**

5

```
import pickle
def createFile():
    fobj=open("Book.dat","ab")
    BookNo=int(input("Book Number : "))
    Book_name=input("Name :")
    Author = input("Author: ")
    Price = int(input("Price : "))
    rec=[BookNo,Book_Name,Author,Price]
    pickle.dump(rec,fobj)
    fobj.close()

def CountRec(Author):
    fobj=open("Book.dat","rb")
    num = 0
    try:
        while True:
            rec=pickle.load(fobj)
            if Author==rec[2]:
                num = num + 1
    except:
        fobj.close()
    return num
```

**OR**

```
import pickle
def CountRec():
    fobj=open("STUDENT.DAT","rb")
    num = 0
    try:
        while True:
            rec=pickle.load(fobj)
            if rec[2] > 75:
                print(rec[0],rec[1],rec[2],sep="\t")
                num = num + 1
    except:
        fobj.close()
    return num
```