KENDRIYA VIDYALAYA SANGATHAN, AHMEDABAD REGION

FIRST PRE-BOARD EXAMINATION, 2020

SUBJECT : COMPUTER SCIENCE (NEW) – 083　　　　　　　**M.M : 70**

CLASS : XII　　　　　　　　　　　　　　　　　　　　**TIME : 3 HOURS**

MARKING SCHEME

Question No.	Part – A	Marks Allocated
	Section – I	
1	a) 5Total 　　Reason : An identifier cannot start with a digit.	1
2	24	1
3	(i) math　　(ii) random　　(½ mark for each module)	1
4	Valid operators : (ii) is　(iii) ^　(½ mark for each operator)	1
5	(a) Tp1 = ("a", "b")	1
6	(d) Error	1
7	Ans. 4	1
8	(i) break　(iv) while　(½ mark for each option)	1
9	Network Congestion	1
10	It is an example of phishing	1
11	ALTER	1
12	LIKE	1
13	getcwd()	1
14	Degree – it is the total number of columns in the table. Cardinality – it is the total number of tuples/Rows in the table.	1
15	Guided – Twisted pair, Coaxial Cable, Optical Fiber (any one) Unguided – Radio waves, Satellite, Micro Waves (any one)	1
16	d) d = All of the mentioned above	1
17	Answer - **noitanima**	1
18	b)　Count(*)	1
19	Wi-Max – Worldwide Interoperability for Microwave Access	1
20	True	1
21	Gateway	1

	Section – II **Both the Case study based questions are compulsory. Attempt any 4 sub parts from each question. Each question carries 1 mark.**	
22	Answers: a) Create table WORKER(WORKER_ID varchar(3), FIRST_NAME varchar(10), LAST_NAME varchar(10), SALARY integer, JOINING_DATE Date, DEPARTMENT varchar(10)); b) WORKER_ID c) alter table worker modify FIRST_NAME varchar(20); d) DELETE FROM WORKER; e) Desc WORKER / Describe WORKER;	1*4=4
23	Answers: a) csv b) writerow(fields) c) writerows(rows) d) csv.reader e) row[0]	1*4=4
	Part – B **Section – I**	
24	a) 24 b) True	2
25	URL stands for Uniform Resource Locator and it is the complete address of a website or web server, e.g.https://www.google.co.in- name of the protocol : https, Web service : www, name of the server: google, DNS Name : co, Name of the country site belongs : in (india) **OR** **Cookies:** .Cookies are messages that a web server transmits to a web browser so that the web server can keep track of the user's activity on a specific website. Cookies are saved in the form of text files in the client computer. **Hacking:** It is a process of accessing a computer system or network without knowing the access authorization credential of that system. Hacking can be illegal or ethical depending on the intention of the hacker.	2

26	a) IPR – Intellectual Property Rights b) SIM – Subscriber's Identity Module c) IMAP – Internet Message Access Protocol d) HTTP – Hyper text transfer Protocol	2
27	A local scope is variable defined within a function. Such variables are said to have local scope. With example A global variable is a variable defined in the ;main' program (_main_ section). Such variables are said to have global scope. With example **OR** Python supports three types of formal arguments : 1) Positional arguments (Required arguments) - When the function call statement must match the number and order of arguments as defined in the function definition. Eg. def check (x, y, z) : 2) Default arguments – A parameter having default value in the function header is known as default parameter. Eg. def interest(P, T, R=0.10) : 3) Keyword (or named) arguments- The named arguments with assigned value being passed in the function call statement. Eg. interest (P=1000, R=10.0, T = 5)	2

28	def result_even( ):
	    x = int(input("Enter a number"))
	   if (x % 2 == 0) :
	        print ("You entered an even number")
	   else:
	        print("Number is odd")
	result_even( )
		2

29	OUTPUT – (i) 30-40-50- Minimum value of BEGIN: 1 Minimum value of LAST: 2	2
30	Primary Key: A primary key is used to ensure data in the specific column is unique. It is a column cannot have NULL values. It is either an existing table column or a column that is specifically generated by the database according to a defined sequence.	2

Example: Refer the figure –

STUD_NO, as well as STUD_PHONE both, are candidate keys for relation STUDENT but STUD_NO can be chosen as the primary key (only one out of many candidate keys).

Foreign Key:

A foreign key is a column or group of columns in a relational database table that provides a link between data in two tables. It is a column (or columns) that references a column (most often the primary key) of another table.

Example: Refer the figure –

STUD_NO in STUDENT_COURSE is a foreign key to STUD_NO in STUDENT relation.

STUDENT

STUD_NO	STUD_NAME	STUD_PHONE	STUD_STATE	STUD_COUNTRY	STUD_AGE
1	RAM	9716271721	Haryana	India	20
2	RAM	9898291281	Punjab	India	19
3	SUJIT	7898291981	Rajsthan	India	18
4	SURESH		Punjab	India	21

Table 1

STUDENT_COURSE

STUD_NO	COURSE_NO	COURSE_NAME
1	C1	DBMS
2	C2	Computer Networks
1	C2	Computer Networks

Table 2

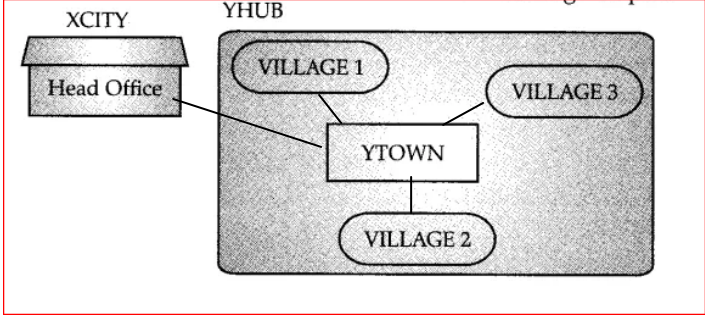| 31	**Commit** : MySqlConnection.commit() method sends a COMMIT statement to the MySql server, committing the current transaction. **Rollback**: MySqlConnection.rollback reverts the changes made by the current transaction.	2
32	WHERE clause is used to select particular rows that satisfy a condition whereas HAVING clause is used in connection with the aggregate function, GROUP BY clause. *For ex. – select * from student where marks > 75;* This statement shall display the records for all the students who have scored more than 75 marks. On the contrary, the statement – *select * from student group by stream having marks > 75;* shall display the records of all the students grouped together on the basis of stream but only for those students who have scored marks more than 75.	2

33	Ans: The new string is : S1U3E5Ts	2
	(1/2 mark for each change i.e. S 1 3 E 5 s)	
	SECTION - II	
| 34 | ```
def bubble_sort(Ar, n):
    print ("Original list:", Ar)
    for i in range(n-1):
        for j in range(n-i-1):
            if Ar[j] > Ar[j+1]:
                Ar[j], Ar[j+1] = Ar[j+1], Ar[j]
    print ("List after sorting :", Ar)
```<br>***Note: Using of any correct code giving the same result is also accepted.*** | 3 |
| 35 | ```
def count_W_H():
    f = open ("Country.txt", "r")
    W,H = 0,0
    r = f.read()
    for x in r:
        if x[0] == "W" or x[0] == "w":
            W=W+1
        elif x[0] == "H" or x[0] == "h":
            H=H+1
    f.close()
    print ("W or w :", W)
    print ("H or h :", H)
```<br>***OR***<br>```
def countwords():
    s = open("Quotes.txt","r")
    f = s.read()
    z = f.split ()
    count = 0
    for I in z:
        count = count + 1
    print ("Total number of words:", count)
```<br>***Note: Using of any correct code giving the same result is also accepted.*** | 3 |

36	OUTPUT:-
	
	   (i) 43000
	
	   (ii) Max (DOB) Min(DOB)
	
	            08-10-1995 05-071993
	
	   (iii) Gender Count(*)
	
	            F 3
	
	            M 3
		3
| 37 | ```
def AddCustomer(Customer):
   CStake.append(Customer)
   If len(CStack)==0:
    print ("Empty Stack")
   else:
     print (CStack)
```<br><br>**OR**<br><br>```
def DeleteCustomer():
   if (CStack ==[]):
     print("There is no Customer!")
   else:
     print("Record deleted:",CStack.pop())
``` | 3 |
| | **Section – III** | |
| 38 | Answers:
   (i)   YTOWN
          Justification:-Since it has the maximum number of computers. It is closet to all other locatios. 80-20 Network rule.

   (ii) Optical Fiber
Layout:

(iii) Switch or Hub
(iv) Video conferencing or VoIP or any other correct service/protocol
(v) Firewall- Placed with the Server at YHUB. | 5 |

39	ANSWERS:-	
	(i) SELECT TNAME, CITY, SALARY FROM TRAINER ORDER BY HIREDATE;	5
	(ii) SELECT TNAME, CITY FROM TRAINER WHERE HIREDATE BETWEEN '2001-12-01' AND '2001-12-31';	
	(iii) SELECT TNAME, HIREDATE, CNAME, STARTDATE FROM TRAINER, COURSE WHERE TRAINER.TID=COURSE.TID AND FEES<=10000;	
	(iv) SELECT CITY, COUNT(*) FROM TRAINER GROUP BY CITY;	
	(v) SELECT TID, TNAME, FROM TRAINER WHERE CITY NOT IN('DELHI', 'MUMBAI');	

40	Answer:- (Using of any correct code giving the same result is also accepted)	5

```
import pickle
def countsal():
    f = open ("emp.dat", "rb")
    n = 0
    try:
        while True:
            rec = pickle.load(f)
            if  rec[2] > 20000:
                print(rec[0], rec[1], rec[2], sep="\t")
                num = num + 1
    except:
        f.close()
```

OR

```
import pickle
def add_record():
    fobj = open("Stu.dat","ab")
    rollno =int(input("Roll no:"))
    name = int(input("Name:"))
    marks = int(input("Marks:"))
    data = [rollno, name, marks]
    pickle.dump(data,fobj)
    fobj.close()

def Search_record():
    f = open("Stu.dat", "rb")
```

```
stu_rec = pickle.load(f)
found = 0
rno = int(input("Enter the roll number to search:"))
try:
   for R in stu_rec:
     if R[0] == rno:
        print ("Successful Search:, R[1], "Found!")
        found = 1
      break
except:
      if found == 0:
          print ("Sorry, record not found:")
       f.close()
```

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