

Class XII (2024-25)

Maximum Marks: 70

- This question paper contains 37 questions.
- All questions are compulsory. However, internal choices have been provided in some questions. Attempt only one of the choices in such questions.
- The paper is divided into 5 Sections- A, B, C, D and E.
- Section A consists of 21 questions (1 to 21). Each question carries 1 Mark.
- Section B consists of 7 questions (22 to 28). Each question carries 2 Marks.
- Section C consists of 3 questions (29 to 31). Each question carries 3 Marks.
- Section D consists of 4 questions (32 to 35). Each question carries 4 Marks.
- Section E consists of 2 questions (36 to 37). Each question carries 5 Marks.
- All programming questions are to be answered using Python Language only.
- In case of MCQ, text of the correct answer should also be written.

1. State true or false: [1]
The expression 2^{2^3} is evaluated as: $(2^2)^3$.
2. Fill in the blank. [1]
_____ is a number of tuples in a relation.
a) Domain
b) Cardinality
c) Attribute
d) Degree
3. `>>> m = [[x, x*2, x*3] for x in range (3,6)]` [1]
a) Error
b) `[3,6,9,[4,8,12],[5,10,15]]`
c) `[[3,6,9],[4,8,12],[5,10,15]]`
d) `[3,6,9,4,8,12,5,10,15]`
4. Following set of commands are executed in shell, what will be the output? [1]
`>>> str = "hello"`
`>>> str[:2]`

a)he

b)llo

c)ello

d)hel

5. What is the output of the following expression? [1]

`print([4.00/(2.0 + 2.0),4.00/2.0 + 2.0,4.00/2.0/2.0])`

6. The virus that uses MS Office suite as its host to replicate is known as? [1]

a) Trojan

b) Worm

c) Macro Virus

d) Word Virus

7. Which of the following command is used to open a file "c:\pattxt" for writing in binary format only? [1]

a) `fout = open("c:\\pat.txt", "wb")`

b) `fout = open("c: \pat.txt", "w+")`

c) `fout = open("c:\ \pat.txt",
"wb+")`

d) `fout = open("c: \ pat.txt", "w")`

8. User can write Python script using [1]

a) `SQL.connect` library

b) `MySQL.connector` library

c) `MySQL.connect` library

d) `MySQL.connect` library

9. Which of the following group functions ignore NULL values? [1]

a) MAX

b) All of these

c) SUM

d) COUNT

10. How are following codes different from one another? [1]

i. `my_file = open('poem.txt', 'r')`
`my_file.read()`

ii. `my_file = open('poem.txt', 'r')`
`my_file.read(100)`

11. State true or false: [1]

The `max()` and `min()` when used with tuples, can work if elements of the tuple are all of the same type.

12. _____ form of access is used to add/remove nodes from a stack. [1]
- a) Both of LIFO and FIFO b) FIFO
c) LIFO d) Weighted
13. Name any two logical operators. [1]
14. Fill in the blank : [1]
In _____ switching, before a communication starts, a dedicated path is identified between the sender and the receiver.
- a) Circuit b) Packet
c) Plot d) Graph
15. What is the output of `sys.platform[:2]` if the code runs on windows operating system? [1]
- a) 'wi' b) Error
c) 'op' d) 'sy'
16. Which of the following command is used to remove the table definition and all data? [1]
- a) Choose b) Drop
c) Create d) Select
17. Find EVEN parity bit for 10010001 [1]
- a) 1 b) 3
c) 2 d) 0
18. In peer-to-peer network, each computer in a network is referred as [1]
- a) server b) sender
c) client d) peer
19. **Assertion (A):** In python break is used to bring the program control out of the loop. [1]
Reason (R): The break is commonly used in the cases where we need to break the loop for a given condition.

a) Both A and R are true and R is the correct explanation of A.

b) Both A and R are true but R is not the correct explanation of A.

c) A is true but R is false.

d) A is false but R is true.

20. **Assertion(A):** In Python, the csv.reader() module is used to read the CSV file. [1]

Reason(R): We can also use DictReader() function to read the CSV file directly into a dictionary rather than deal with a list of individual integer elements.

a) Both A and R are true and R is the correct explanation of A.

b) Both A and R are true but R is not the correct explanation of A.

c) A is true but R is false.

d) A is false but R is true.

21. **Assertion (A):** Python provides us the flexibility to offer the comma-separated values which are internally treated as tuples at the function call. [1]

Reason (R): By using the variable-length arguments, we can pass any number of arguments.

a) Both A and R are true and R is the correct explanation of A.

b) Both A and R are true but R is not the correct explanation of A.

c) A is true but R is false.

d) A is false but R is true.

Section B

22. What measures do wireless networks employ to avoid collisions? [2]

23. Consider the following table Traders with following fields [2]

TCode	TName	City
T01	Electronic Sales	Mumbai
T03	Busy Store Corp	Delhi
T02	Disp House Inc	Chennai

Write Python code to display the names of those traders who are either from Delhi or from Mumbai.

24. Find the errors in following code and write the correct code. [2]

Def s(x):

```

a = 'k'
print(a * x)
print(a * str(x))
for in [1, 2', 10 :
s(n)

```

- i. Underline the corrections
- ii. Write the reason!error next to it in comment form.

OR

How can you add following data in empty dictionary?

Keys	Values
A	One
B	Two
C	Three
D	Four

25. Consider the table Persons whose fields are P_ID, LastName, FirstName, Address, City. Write a Python code to add a new row but add data only in the P_Id, LastName and columns as 5, Peterson, Kari respectively. [2]

26. What is the output of the following? [2]

```

x = 12
for i in x:
print(i)

```

OR

Rewrite the following code into for loop:

```

i = 3
while (i < 5):
    if (i == 4):
        print("Welcome")
    else:
        print("No entry")
    i = i + 1
print("value of i", i)

```

27. Explain seek() method. [2]

OR

A text file "PARA.txt" contains a paragraph. Write a function that searches for a given character and reports the number of occurrence of the character in the file.

28. Write a function that accepts two parameters: a dictionary and a number; and prints only the keys that have values more than the passed number. [2]

Section C

29. Write a function that takes a list that is sorted in ascending order and a number as argument. The function should do the following: [3]
- Insert the number passed as argument in a sorted list.
 - Delete the number from the list.

OR

How are following two statements different?

```
import math
```

```
from math import *
```

30. Give output for following SQL queries as per given table(s): [3]

Table: INTERIORS

NO.	ITEM NAME	TYPE	DATEOFSTOCK	PRICE	DISCOUNT
1.	Red rose	Double Bed	23/02/02	32000	15
2.	Soft-touch	Baby cot	20/01/02	9000	10
3.	Jerry's home	Baby cot	19/02/02	8500	10
4.	Rough wood	Office Table	01/01/02	20000	20
5.	Comfort zone	Double Bed	12/01/02	15000	20
6.	Jerry look	Baby cot	24/02/02	700	19
7.	Lion king	Office Table	20/02/02	16000	20
8.	Royal tiger	Sofa	22/02/02	30000	25

9.	Park sitting	Sofa	13/12/01	9000	15
10.	Dine Paradise	Dining Table	19/02/02	11000	15

- i. SELECT COUNT (DISTINCT TYPE) FROM INTERIORS;
- ii. SELECT AVG(DISCOUNT) FROM INTERIORS WHERE TYPE = "Baby cot" ;
- iii. SELECT SUM(PRICE) FROM INTERIORS WHERE DATEOFSTOCK< {12/02/02}.

OR

- i. Write two examples of DBMS software.
- ii. What is meant by NULL value in MySQL?
- iii. Table 'Club' has 4 rows and 3 columns. Table 'Member' has 2 rows and 5 columns. What will be the cardinality of the Cartesian product of them?

31. Write a method in Python to find and display the prime number between 2 to n. [3]
Pass n as an argument to the method.

OR

Write a function that receives two tuples and creates a third that contains all elements of the first followed by all elements of the second.

Section D

32. Write the Push operation of stack containing person names. Notice that the name should only accept characters, spaces and period (.) except digits. Assume that Pname is a class instance attribute. [4]

OR

A line of text is read from the input terminal into a stack. Write a program to output the string in the reverse order, each character appearing twice.

(ie.g., the string a b c d e should be changed to ee dd cc bb aa)

33. Write one difference between CSV and text files. [4]
Write a program in Python that defines and calls the following user defined functions:

- i. COURIER_ADD () : It takes the values from the user and adds the details to a csv file 'courier.csv'. Each record consists of a list with field elements as cid, s

name, Source, destination to store Courier ID, Sender name, Source and destination address respectively.

ii. COURIER_SEARCH () : Takes the destination as the input and displays all the courier records going to that destination.

34. Consider the following tables GAMES and PLAYER and answer (b) and (c) parts of this question: [4]

Table: GAMES

GCode	Game Name	Type	Number	Prize Money	Schedule Date
101	Carom Board	Indoor	2	5000	23-Jan-2004
102	Badminton	Outdoor	2	12000	12-Dec-2003
103	Table Tennis	Indoor	4	8000	14-Feb-2004
105	Chess	Indoor	2	9000	01-Jan-2004
108	Lawn Tennis	Outdoor	4	25000	19-Mar-2004

Table: PLAYER

PCode	Name	GCode
1	Nabi Ahmad	101
2	Ravi Sahai	108
3	Jatin	101
4	Nazneen	103

- What do you understand by primary key and candidate keys?
- Write SQL commands for the following statements:
 - To display the name of all GAMES with their GCodes.
 - To display details of those GAMES which are having PrizeMoney more than 7000.
 - To display the content of the GAMES table in ascending order of Schedule Date.
 - To display sum of PrizeMoney for each type of GAMES.
- Give the output of the following SQL queries:
 - SELECT COUNT (DISTINCT Number) FROM GAMES;
 - SELECT MAX(ScheduleDate), MIN (ScheduleDate) FROM GAMES;

- iii. SELECT Name, GameName FROM GAMES G, PLAYER P WHERE
(G.Gcode= P.Gcode AND G.PrizeMoney>10000);
- iv. SELECT DISTINCT Gcode FROM PLAYER;

OR

Write SQL commands for (i) to (v) on the basis of table INTERIORS.

TABLE: INTERIORS

No.	ITEM NAME	TYPE	DATE OF STOCK	PRICE	DISCOUNT
1	Red rose	Double Bed	23/02/02	32000	15
2	Soft touch	Baby cot	20/01/02	9000	10
3	Jerry's home	Baby cot	19/02/02	8500	10
4	Rough wood	Office Table	01/01/02	20000	20
5	Comfort zone	Double Bed	12/01/02	15000	20
6	Jerry look	Baby cot	24/02/02	7000	19
7	Lion king	Office Table	20/02/02	16000	20
8	Royal tiger	Sofa	22/02/02	30000	25
9	Park sitting	Sofa	13/12/01	9000	15
10	Dine Paradise	Dining Table	19/02/02	11000	15
11	White Wood	Double Bed	23/03/03	20000	20
12	James 007	Sofa	20/02/03	15000	15
13	Tom look	Baby cot	21/02/03	7000	10

- To show all information about the Sofa from the INTERIORS table.
- To list the ITEMNAME, which are priced at more than 10000 from the INTERIORS table.
- To list ITEMNAME and TYPE of those items, in which DATEOFSTOCK is before 22/01/02 from the INTERIORS table in descending order of ITEMNAME.
- To insert a new row in the INTERIORS table with the following data
{14, 'TrueIndian' , 'Office Table', '25/03/03', 15000, 20}
- To display the name of item with their price which have discount more than 20.

35. Here is a table Club

[4]

MemberId	MemberName	Address	Age	Fee
----------	------------	---------	-----	-----

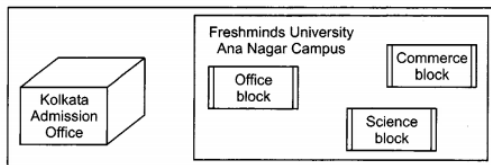
M001	Sumit	New Delhi	20	2000
M002	Nisha	Gurgaon	19	3500
M003	Niharika	New Delhi	21	2100
M004	Sachin	Faridabad	18	3500

Write the Python code for the following

- Update the Address of member whose MemberId is M003 with Noida.
- Delete the record of those member whose name is Sachin.

Section E

36. The Freshminds University of India is starting its first campus in Ana Nagar of South India with its center admission office in Kolkata. The university has 3 major blocks comprising of Office Block, Science Block and Commerce Block in the 5 km area Campus. [5]



As a network expert, you need to suggest the network plan as per (i) to (iv) to the authorities keeping in mind the distance and other given parameters.

Expected Wire distances between various locations:

Office Block to Science Block	90 m
Office Block to Commerce Block	80 m
Science Block to Commerce Block	15 m
Kolkata Admission office to Ana Nagar Campus	2450 km

Expected number of Computers to be installed at various locations in the University are as follows:

Office Block	10
Science Block	140
Commerce Block	30
Kolkata Admission office	8

- What type of server should be installed in university?
 - Dedicated
 - Non-dedicated

- ii. Suggest the most suitable place (i.e., block) to house the server of this university with a suitable reason.
- iii. Suggest an efficient device from the following to be installed in each of the blocks to connect all the computers:
 - MODEM
 - SWITCH
 - GATEWAY
- iv. Suggest the most suitable (very high speed) service to provide data connectivity between Admission Office located in Kolkata and the campus located in Ana Nagar from the following options:
 - Telephone line
 - Fixed-Line Dial-up connection
 - Co-axial Cable Network
 - GSM
 - Leased line
 - Satellite Connection

37. Write queries for (i) to (iv) and find outputs for SQL queries (v) to (viii), which are based on the tables [5]

Table: VEHICLE

VCODE	VEHICLETYPE	PERKM
V01	VOLVO BUS	150
V02	AC DELUXE BUS	125
V03	ORDINARY BUS	80
V05	SUV	30
V04	CAR	18

Table: TRAVEL

CNO	CNAME	TRAVELDATE	KM	VCODE	NOP
101	K. Niwal	2015-12-13	200	V01	32
103	Fredrick Sym	2016-03-21	120	V03	45
105	Hitesh Jain	2016-04-23	450	V02	42
102	Ravi Anish	2016-01-13	80	V02	40

107	John Malina	2015-02-10	65	V04	2
104	Sahanubhuti	2016-01-28	90	V05	4
106	Ramesh Jaya	2016-04-06	100	V01	25

Note:

- PERKM is Freight Charges per kilometre.
 - Km is kilometres Travelled
 - NOP is number of passengers travelled in vehicle.
- i. To display CNO, CNAME, TRAVELDATE from the table TRAVEL in descending order of CNO
 - ii. To display the CNAME of all customers from the table TRAVEL who are travelling by vehicle with code V01 or V02
 - iii. To display the CNO and CNAME of those customers from the table TRAVEL who travelled between 2015-12- 31 and 2015-05-01
 - iv. To display all the details from table TRAVEL for the customers, who have travel distance more than 120 KM in ascending order of NOP
 - v. SELECT COUNT (*), VCODE FROM TRAVEL GROUP BY VCODE HAVING COUNT (*) > 1
 - vi. SELECT DISTINCT VCODE FROM TRAVEL
 - vii. SELECT A.VCODE, CNAME, VEHICLETYPE FROM TRAVEL A, VEHICLE B WHERE A. VCODE = B. VCODE and KM < 90
 - viii. SELECT CNAME, KM*PERKM FROM TRAVEL A, VEHICLE B WHERE A.VCODE = B.VCODE AND A. VCODE 'V05'

OR

Write SQL queries for (i) to (iv) and find outputs for SQL queries (v) to (viii), which are based on the tables TRANSPORT and TRIP.

TABLE: TRANSPORT

TCODE	TTYPE	PERKM
103	ORDINARY BUS	90
105	SUV	40
104	CAR	20
103	ORDINARY BUS	90
101	VOLVO BUS	160

102	AC DELUXE BUS	140
-----	---------------	-----

Note:

- PERKM is Freight Charges per kilometre
- TTYPE is Transport Vehicle Type

TABLE: TRIP

NO	NAME	TDATE	KM	TCODE	NOP
11	Tanish Khan	2015-12-13	200	101	32
13	Danish Sahai	2016-06-21	100	103	45
15	Ram Kumar	2016-02-23	350	102	42
12	Fen Shen	2016-01-13	90	102	40
17	Aan Kumar	2015-02-10	75	104	2
14	Veena	2016-06-28	80	105	4
16	Raj pal Kirti	2016-06-06	200	101	25

Note:

- NO is Driver Number
 - KM is Kilometre travelled
 - NOP is number of travellers travelled in a vehicle
 - TDATE is Trip Date
- To display NO, NAME, TDATE from the table TRIP in descending order of NO.
 - To display the NAME of the drivers from the table TRIP, who are travelling by transport vehicle with code 101 or 103.
 - To display the NO and NAME of those drivers from the table TRIP who travelled between 2015-02-10 and 2015-04-01.
 - To display all the details from table TRIP in which the distance travelled is more than 100 KM in ascending order of NOP
 - SELECT COUNT (*), TCODE From TRIP
GROUP BY TCODE HAVING COUNT (*) > 1;
 - SELECT DISTINCT TCODE from TRIP;
 - SELECT A.TCODE, NAME, TTYPE
FROM TRIP A, TRANSPORT B
WHERE A.TCODE = B. TCODE AND KM < 90;

viii. SELECT NAME, KM * PERKM
FROM TRIP A, TRANSPORT B
WHERE A. TCODE = B. TCODE AND A. TCODE = '105';

Solution
SAMPLE QUESTION PAPER - 5
Computer Science (083)
Class XII (2024-25)
Section A

1.

(b) False

Explanation:

False, output 2^{2^3} is 256 and $(2^2)^3$ is 64

2.

(b) Cardinality

Explanation:

Cardinality

3.

(c) `[[3,6,9],[4,8,12],[5,10,15]]`

Explanation:

The above code generates a list of lists each for an integer values between the values specified in the range function inclusive the lower limit.

4. **(a)** he

Explanation:

`str[:2]` prints only the values at index 0 and 1 (as 2 is exclusive) of string and hence the answer is “he”.

5. `[1.0, 4.0, 1.0]`

6.

(c) Macro Virus

Explanation:

These viruses infect and replicate using the MS Office program suite, mainly MS Word and MS Excel. The virus inserts unwanted words or phrases in the document.

7. **(a)** `fout = open("c:\\pat.txt", "wb")`

Explanation:

`fout = open("c:\\pat.txt", "wb")`

8.

(b) MySQL.connector library

Explanation:

MySQL.connector library

9.

(b) All of these

Explanation:

All the group functions ignore NULL values.

10. i. read() method will read all the contents of the file poem.txt.
ii. read(100) will only read the first 100 bytes of the file poem.txt.
11. (a) True

Explanation:

True

12.
(c) LIFO

Explanation:

LIFO (last in first out) is a form of access is used to add/remove nodes from a stack.

13. And, OR

14. (a) Circuit

Explanation:

Circuit

15. (a) 'wi'

Explanation:

windows[:2] = 'wi'

16.
(b) Drop

Explanation:

Drop

17. (a) 1

Explanation:

Parity refers to the number of bits set to 1 in the data item

Even parity - an even number of bits are 1

Odd parity - an odd number of bits are 1

A parity bit is an extra bit transmitted with a data item, chose to give the resulting bits even or odd parity

Even parity - data: 10010001, parity bit 1

18.
(d) peer

Explanation:

peer

19.
(b) Both A and R are true but R is not the correct explanation of A.

Explanation:

We can say that break is used to abort the current execution of the program and the control goes to the next line after the loop. break is commonly used in the cases where we need to break the loop for a given condition.

20.

(c) A is true but R is false.

Explanation:

We can use **DictReader()** function to read the csv file directly into a dictionary rather than deal with a list of individual string, not integer elements. In Python, the csv. reader() module is used to read the csv file.

21.

(b) Both A and R are true but R is not the correct explanation of A.

Explanation:

In large projects, sometimes we may not know the number of arguments to be passed in advance. In such cases, Python allows us to offer the comma-separated values which are internally treated as tuples at the function call. By using the variable-length arguments, we can pass any number of arguments. Special symbols are used for passing arguments : *args for Non-Keyword Arguments and **kwargs for Keyword Arguments.

Section B

22. The wireless networks employ a protocol called CSMA/CA (Carrier Sense Multiple Access with Collision Avoidance) to avoid collisions in the network.

It is a multiple access method in which the carrier is sensed first and a node attempts to avoid collisions by transmitting only when it senses that the carrier is idle i.e., no other node is transmitting data.

Wireless networks use CSMA/CA as they cannot detect collisions; hence they avoid it.

23. import mysql.connector

```
mycon=mysql.connector.connect(host="localhost",user="root",passwd="system",database=
cursor = mycon.cursor()
```

```
sql="SELECT * FROM Traders WHERE City = 'Mumbai' OR City = 'Delhi'
```

```
try:
```

```
    cursor.execute(sql)
```

```
    dis = cursor.fetchall()
```

```
    for i in disp:
```

```
        print (i)
```

```
except:
```

```
    mycon.rollback()
```

```
mycon.close()
```

24. def s(x): # def should be in lowercase

```
a = 'k'
```

```
print(a*x)
```

```
print(a ± str(x)) # two strings cannot be used with * operator,
```

```
for n in [1,2,10]: # but can use -f operator
```

```
# (i) loop variable not defined
```

```
# (ii) closing ] missing
```

```
s(n). # incorrect indentation
```

OR

```
dic = { }
```

```
dic['A'] = 'One'
```

```
dic[' B'] = 'Two'
```

```
dic['C'] = 'Three'
```

```
dic['D'] = 'Four'
```

25. import mysql.connector

```
con = mysql.connector.connect(host = "localhost",user = " admin",passwd = "admin@123"
```

```
cursor = con.cursor()
```

```
sql = "INSERT INTO Persons(P_ID, LastName, FirstName) VALUES(5, 'Peterson', 'Kari')"
```

```
try:
```

```
    cursor.execute(sql)
```

```
    con.commit()
```

```
except:
```

```
    con.rollback()
```

```
con.close()
```

26. The above code will produce an error as x is an integer and is used in place of a sequence or iterable in a for loop; hence the error integer values cannot be used as iterable.

OR

```
for i in range(3,5)
```

```
    if(i==4):
```

```
        print("Welcome")
```

```
    else:
```

```
        print("No entry")
```

```
print("value of i",i)
```

27. The seek() method moves the current file pointer position to the specified position. Syntax : (offset [, from_what]). The offset argument indicates the number of bytes to be moved. The from_what argument specifies the reference position from where the bytes are to be moved. The values for from_what argument can be 0(beginning of the file); default value, 1(current position of the pointer) or 2(end of the file).

OR

```
def countchar():
    filename = "PARA.txt"
    count = 0
    c = raw_input("Enter the character to search for:")
    with open(filename, 'r') as file_obj:
        for line in f:
            for word in line:
                for char in word:
                    if char.strip() == c.strip(): #remove spaces
                        count=count + 1
    print("No. of occurrences of", c , "=", count)
countchr() function returns the occurrence of the character entered by the user in the
"PARA.txt file.
```

```
28. def prinDict(D, num):
    for a in D:
        if D[a] > num:
            print(a, ":", D[a], end = " ")
    print()
D1 = {'a':23, 'b':12, 'c':22, 'd': 17}
prinDict(D1, 17)
```

Section C

```
29. from bisect import bisect
def insert_delete(numlist , number):
    insert_index = bisect(numlist , number)
    numlist.insert(insert_index,number)
    print "List after Insertion"
    print numlist
    numlist.remove(number)
    print "List after Deletion"
    print numlist
```

```

max_range = input("Enter Count of numbers: ")
numlist = [ ]
for i in range(0, max_range):
    numlist.append(input("?"))
numlist.sort()
num = input("Enter the number to be inserted and deleted")
insert_delete(numlist, num)

```

OR

When **import math** statement is used, a new namespace sets up in our working environment with the same name as that of the math module and code of the module is interpreted and executed. All the defined functions, constants and variables of the math module are available to our program. There is no need to import the objects of modules everytime they are used.

Whereas when we use **from math import *** statement no new namespace is created. Only the functions and variables of the imported module are added to the namespace of the program. If there are two variables with same name, one in the program and other in the imported module then the variable of the imported module is hidden by the program variable. We need to import every object we are using in the code.

30. output

- i. 5
- ii. 13
- iii. 53000

OR

- i. a. Oracle
- b. SQL Server
- c. MySQL
- d. Microsoft Access
- ii. Null value signifies a legal empty value. It is different from a zero value
- iii. 8

31. def prime(n) :

```

for num in range (2, n) :
    is_prime = 1
    for i in range (2, num):
        if num % i == 0:
            is_prime = 0

```

```
if is_prime == 1:
    print (num)
```

OR

```
def appendTuple(tuple1, tuple2):
    """This function will join two tuples into one"""
    tuple3 = tuple1 + tuple2
    return tuple3
```

Section D

```
32. def insert():
    name_pattern = re.compile(r"[A-Za-zs.]")
    while True:
        n = input("Enter name:")
        while name_pattern.search(n):
            print("Invalid name")
            print("Enter name correctly")
            n = input()
        Sname.append(n)
        c = input("Enter more name <y/n>").upper()
        if (c!='y'):
            break
```

OR

```
MAX_SIZE = 1000
stack = [0 for i in range(MAX_SIZE)]
top = 0
def isEmpty ( ):
    global top
    return top == 0
def push(x):
    global stack,top
    if top >= MAX_SIZE:
        return
    stack[top]= x
    top += 1
def pop( ):
    global stack,top
    if isEmpty( ):
```

```

return
else:
top -= 1
return stack[top]
string = input( ).split()
for i in string:
push(i)
while not isEmpty( ):
x = pop( )
print (x + x, end = ' ')

```

33. CSV files

- can be viewed in spreadsheets
- module CSV has to be imported

Text files

- can be viewed in the text editor
- No specific module required to be imported

```
import csv
```

```
def COURIER_ADD() :
```

```

    f1=open("courier.csv","a",newline="\n")
    writ=csv.writer(f1)
    cid=int(input("Enter the Courier id"))
    s_name=input("Enter the Sender Name")
    Source=input("Enter the Source Address")
    destination=input("Enter Destination Name")
    detail=[cid,s_name,Source,destination]
    writ.writerow (detail)
    f1.close()

```

```
def COURIER_SEARCH() :
```

```

    f1=open("courier.csv","r") # ignore newline
    detail=csv.reader(f1)
    name=input("Enter the Destination Name to be searched")
    for i in detail :
        if i[3]==name:
            print("Details of courier are: ",i)

```

```
COURIER_ADD()
```

```
COURIER_SEARCH()
```

34. a. Primary Key is a unique and non-null key, which is used to identify a tuple uniquely. If a table has more than one such attributes which identify a tuple uniquely then all such attributes are known as candidate keys.
- b. i. SELECT GameName, GCode FROM GAMES;
ii. SELECT * FROM Games WHERE PrizeMoney > 7000;
iii. SELECT * FROM Games ORDER BY ScheduleDate;
iv. SELECT SUM(Prizemoney) FROM Games GROUP BY Type;
- c. i. 2
ii. 19-Mar-2004 12-Dec-2003
iii. Ravi Sahai Lawn Tennis
iv. 101
108
103

OR

- i. SELECT * FROM INTERIORS WHERE TYPE='Sofa';
ii. SELECT ITEMNAME FROM INTERIORS WHERE PRICE > 10000;
iii. SELECT ITEMNAME, TYPE FROM INTERIORS WHERE DATEOFSTOCK <'22/01/02' ORDER BY ITEMNAME DESC;
iv. INSERT INTO INTERIORS VALUES (14,'True Indian', 'Office Table', '25/03/03',15000,20);
v. SELECT ITEMNAME, PRICE FROM INTERIORS WHERE DISCOUNT>20;
35. i.

```
import mysql.connector
mycon=mysql.connector.connect(host="localhost",user="Admin",passwd="Admin@123456789")
cursor = mycon.cursor()
try:
    cursor.execute("UPDATE Club SET Address = 'Noida' WHERE MemberId='M003'")
    mycon.commit()
except:
    mycon.rollback()
    mycon.close()
```
- ii.

```
import mysql.connector
mycon=mysql.connector.connect(host="localhost",user="Admin",passwd="Admin@123456789")
cursor=mycon.cursor()
try:
    cursor.execute("DELETE FROM Club WHERE MemberName='Sachin'")
    cursor.commit()
```

except:

```
mycon.rollback()
```

1 ^

Section E

36. i. The server should be Dedicated server
ii. The most suitable place to house the server is Science Block as it has the maximum number of computers. Thus, reducing the cabling cost and increase the efficiency of the network.
iii. SWITCH
iv. Satellite Connection Or Leased line

37. i. SELECT CNO, CNAME, TRAVELDATE FROM TRAVEL ORDER BY CNO DESC;
ii. SELECT CNAME FROM TRAVEL WHERE VCODE = 'V01' OR VCODE = 'V02'
iii. SELECT CNO, CNAME from TRAVEL WHERE TRAVELDATE BETWEEN '2015-05-01' AND '2015-12-31'

OR

SELECT CNO, CNAME from TRAVEL WHERE TRAVELDATE >= '2015-05-01'
AND TRAVELDATE <= '2015-12-31'

- iv. SELECT * FROM TRAVEL WHERE KM > 120 ORDER BY NOP;

v.	COUNT(*)	VCODE
	2	V01
	2	V02

- vi. **DISTINCT VCODE**

V01

V02

V03

V04

V05

vii.	VCODE	CNAME	VEHICLETYPE
	V02	Ravi Anish	AC DELUXE BUS
	V04	John Malina	CAR

viii.	CNAME	KM*PERKM
	Sahanubhuti	2700

OR

- i. SELECT NO, NAME, TDATE FROM TRIP ORDER BY NO DESC

ii. SELECT NAME FROM TRIP

WHERE TCODE = 101 OR TCODE = 103;

iii. SELECT NO, NAME FROM TRIP

WHERE TDATE BETWEEN('10-FEB-2015' AND '01-APR-2015');

iv. SELECT NO, NAME, TDATE, KM, TCODE FROM TRIP

WHERE KM >100 ORDER BY NOP;

v.	2	101
	1	103
	2	102
	1	104
	1	105

vi. 103

104

105

vii.	104	Aan Kumar	CAR
	105	Veena	SUV

viii.	VEENA	3200
-------	-------	------