

**Time Allowed: 3 hours**

**Sample Question Paper - 1**  
**Class: XII Session: 2023-24**  
**Computer Science (083)**

**Maximum Marks: 70**

**General Instructions:**

- Please check this question paper contains 35 questions.
- The paper is divided into 4 Sections- A, B, C, D and E.
- Section A, consists of 18 questions (1 to 18). Each question carries 1 Mark.
- Section B, consists of 7 questions (19 to 25). Each question carries 2 Marks.
- Section C, consists of 5 questions (26 to 30). Each question carries 3 Marks.
- Section D, consists of 2 questions (31 to 32). Each question carries 4 Marks.
- Section E, consists of 3 questions (33 to 35). Each question carries 5 Marks.
- All programming questions are to be answered using Python Language only.

**Section A**

1. State true or false: [1]

Do both the following represent the same list.

['a', 'b', 'c']

['c', 'a', 'b']

2. Which operator performs pattern matching? [1]

a) LIKE operator

b) BETWEEN operator

c) None of these

d) EXISTS operator

3. Which of the following is correct to retrieve any character at index 'i' in string 's'? [1]

a) s.\_\_getitem\_\_(i)

b) s.getitem(i-1)

c) s.\_\_getitem\_\_(i-1)

d) s.getitem(i)

4. What will be the output of the following code? [1]

```
value = 50
```

```
def display(N):
```

```
    global value
```

```
    value = 25
```

```
    if N%7==0:
```

```
        value = value + N
```

```
    else:
```

```
        value = value - N
```

print(value)

a) 5#50#

b) 50#50

c) 50#5

d) 50#30

5. Signals generated by an operating system to send it over phone line must be further converted into a/an [1]

a) analog signal

b) microwave

c) AC signal

d) digital signal

6. To read the next line of the file from a file object infi, we use [1]

a) infi.read()

b) infi.readlines()

c) infi.readline()

d) infi.read(all)

7. What is default value of host? [1]

a) localhost

b) global host

c) Host

d) None of these

8. Which of the following sublanguages of SQL is used to define the structure of the relation, deleting relations and relating schemas? [1]

a) Relational Schema

b) DDL (Data Definition Language)

c) DML (Data Manipulation Language)

d) Query

9. Which function is used to read all the characters? [1]

a) readcharacters( )

b) read( )

c) readchar( )

d) readall( )

10. What will be the output of the following Python code? [1]

```
def add (num1, num2):  
    sum = num1 + num2
```

a) None

b) Null

c) 50

d) 0

11. Consider the following operation performed on a stack of size 5. [1]

Push(1); Pop(); Push(2); Push(3); Pop(); Push(4); Pop(); Pop(); Push(5);

After the completion of all operation, the number of elements present in stack are:

a) 4

b) 3

c) 1

d) 2

12. Which of the following is the use of function in python? [1]

a) Functions don't provide better modularity for your application

b) Functions are reusable pieces of programs

c) you can't also create your own functions

d) All of these

13. State true or false: [1]

PING checks if a computer is connected to a network or not.

14. The process of converting a data type into another data type is known as \_\_\_\_\_. [1]

a) expression

b) type conversion

c) operator

d) comparison

15. Fill in the blanks: [1]

\_\_\_\_\_ operator is used to match a value similar to specific pattern in a column using % and \_.

16. CDMA stands for? [1]

a) Call Division Multiple Access

b) Channel Division Multiple Access

c) Cell Division Multiple Access

d) Code Division Multiple Access

**Reason (R):** `intersection_update()` method modifies the original set by removing the unwanted items.

- 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.

18. **Assertion (A):** CSV stands for **comma-separated values**, which is defined as a simple file format that uses specific structuring to arrange tabular data. [1]

**Reason (R):** The csv module is used to handle the CSV files to read/write and get data from specified columns.

- 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

19. **Answer:** [2]

- (i)
  - i. What is modulation? [1]
  - ii. Write one characteristic each for 2G and 3G mobile technologies. [1]

- (ii) **OR**
  - i. What are the basic methods of checking errors in the data being transmitted over networks? [2]

20. Write Python code to create a table location with the following fields [2]

id	id of the location
bidycode	code of the building
room	type of rooms
capacity	capacity of the room

21. Rewrite the following code in python after removing all syntax error(s). Underline each correction done in the code. [2]

```
30 = To
for K in range(0,To)
IF k%4== 0:
print (K * 4)
```

OR

What is the output of the following?

```
True = False
while True:
    print(True)
    break
```

22. **Answer:** [2]

(i) Which command is used to import mysql.connector package with an identifier? [1]

(ii) What will the following query do? [1]

```
import mysql.connector
db = mysql.connector.connect(..)
cursor = db.cursor()
person_id = input ("Enter required person id")
lastname = input ("Enter required lastname")
db.execute("INSERT INTO staff (person_id, lastname) VALUES ({}, '{}') ".
format(person__id, lastname))
db.commit( )
b.close( )
```

23. Differentiate between a logical error and syntax error. Also, give suitable examples of each in Python. [2]

OR

As immutable types cannot be changed in place then the following code should raise an error which modifies an int (an immutable type) variable. But it produces no error. Why?

```
A = 22
A += 2
```

24. Consider a binary file Employee.dat containing details such as empno:ename:salary (separator ':'). Write a Python function to display details of those employees who are earning between 20000 and 40000. (Both values inclusive) [2]

OR

A text file(say an.txt) contains alphanumeric text. Write a program that reads this text file and prints only the numbers or digits from the file.

25. Write a function that takes a positive integer and returns the one's position digit of the integer. [2]

26. **Answer:** [3]

(i) Write a program which will find all such numbers which are divisible by 7 but are not a multiple of 5, between 200 and 300 (both included). [1.5]

(ii) Predict the output. [1.5]

```
dic = {'a' : 1, 'b' : 2, 'c' : 3, 'd' : 4}
print(dic)
if 'a' in dic:
    del dic['a']
print(dic)
```

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

28. Create a table named Programmers with the following structure: [3]

P_Name	VARCHAR(20)
DOJ	Date
SAL	NUMBER

i. Display the name of the programmer, which has the highest salary.

ii. Update the salary of all programmer by 2000, whose name start with letter R.

OR

What are Tuples in a SQL Table? Write a suitable example with a SQL Table to illustrate your answer.

29. A text file "Quotes.Txt" has the following data written in it : [3]

Living a life you can be proud of Doing you

Spending your time with people and activities that are important to you

Standing up for things that are right even when it's hard

Becoming the best version of you

Write a user defined function to display the total number of words present in the file.

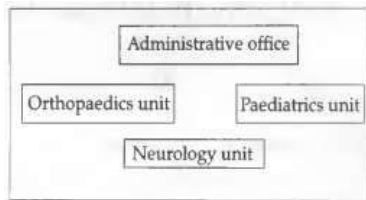
30. Write a function that takes a sorted list and a number as an argument. Search for the number in the sorted list using binary search. [3]

- 3 . Ayurveda Training Educational Institute is setting up its Centre in Hyderabad with three specialized departments for Orthopaedics, Neurology and Paediatrics along with an administrative office in separate buildings. The physical distances between these department buildings and the member of computers to be installed in these departments and administrative offices are given as follows. You, as a network expert have the shortest distances between various locations in meters:

Administrative office to Orthopaedics unit	55
Neurology unit to Administrative office	30
Orthopedics unit to Neurology unit	70
Paediatrics unit to Neurology unit	50
Pediatrics unit to Administrative office	40
Paediatrics unit to Orthopaedics unit	110

The number of Computers installed at the various location is as follows:

Paediatrics unit	40
Administrative office	140
Neurology unit	50
Orthopedics unit	80



- Suggest the most suitable location for the main server of this institution to get efficient connectivity.
- Suggest the cable layout for effective network connectivity of the building having a server with all the other buildings.
- Suggest a device to be installed in each of these building for connecting computers installed within the building out of the following:
  - Gateway
  - Modem
  - Switch

In each of the building one of the following: Topologies: Bus Topology, Star Topology, Network Cable: Single Pair Telephone Cable, Coaxial Cable, Ethernet Cable.

3 . Write SQL queries for (i) to (vii) on the basis of table ITEMS and TRADERS: [5]

**Table: ITEMS**

ICODE	INAME	QTY	PRICE	COMPANY	TCODE
1001	DIGITAL PAD 12i	120	11000	XENITA	T01
1006	LED SCREEN 40	70	38000	SANTORA	T02
1004	CAR GPS SYSTEM	50	21500	GEOKNOW	T01
1003	DIGITAL CAMERA 12X	160	8000	DIGICLICK	T02
1005	PEN DRIVE 32 GB	600	1200	STOREHOME	T03

**Table: TRADERS**

TCode	TName	City
101	ELECTRONIC SALES	MUMBAI
103	BUSY STORE CORP	DELHI
102	DISP HOUSE INC	CHENNAI

- To display the details of all the items in ascending order of item names (i.e., INAME).
- To display item name and price of all those items, whose price is in the range of 10000 and 22000 (both values inclusive).
- To display the number of items, which are traded by each trader. The expected output of this query should be:  
T01 2 T02 2 T03 1
- To display the price, item name and quantity (i.e., qty) of those items which have quantity more than 150.
- To display the names of those traders, who are either from DELHI or from MUMBAI.
- To display the names of the companies and the names of the items in descending order of company names.



vii. Obtain the outputs of the following SQL queries based on the data given in tables ITEMS and TRADERS above.

- a. SELECT MAX (PRICE), MIN (PRICE) FROM ITEMS;
- b. SELECT PRICE\*QTY FROM ITEMS WHERE CODE=1004;
- c. SELECT DISTINCT TCODE FROM ITEMS;
- d. SELECT INAME, TNAME FROM ITEMS I, TRADERS T WHERE I.TCODE=T.TCODE AND QTY<100;

OR

Consider the following tables WORKER and PAYLEVEL and answer (a) and (b) parts of this question:

**Table: WORKER**

ECODE	NAME	DESIGN	PLEVEL	DOJ	DOB
11	Radhe Shyam	Supervisor	P001	13-Sep-2004	23-Aug-1981
12	Chander Nath	Operator	P003	22-Feb-2010	12-Jul-1987
13	Fizza	Operator	P003	14-Jun-2009	14-Oct-1983
15	Ameen Ahmed	Mechanic	P002	21-Aug-2006	13-Mar-1984
18	Sanya	Clerk	P002	19-Dec-2005	09-Jun-1983

**Table: PAYLEVEL**

PLEVEL	PAY	ALLOWANCE
P001	26000	12000
P002	22000	10000
P003	12000	6000

- a. Write SQL commands for the following statements:
  - i. To display the name of all Workers in descending order of DOB.
  - ii. To display NAME and DESIGN of those Workers, whose PLEVEL is either P001 or P002.

- iii. To display the content of all the workers table, whose DOB is in between '19- JAN-1984' and '18-JAN-1987'.
  - iv. To add a new row with the following: 19, 'DayaKishore', 'Operator', 'P003', '19- Sep-2008', '17-Jul-1984'
- b. Give the output of the following SQL queries:
- i. SELECT COUNT (PLEVEL), PLEVEL FROM WORKER GROUP BY PLEVEL;
  - ii. SELECT MAX(DOB), MIN(DOJ) FROM WORKER;
  - iii. SELECT Name, PAY FROM WORKER W, PAYLEVEL P WHERE W.PLEVEL = P.PLEVEL AND W.ECODE < 13;
  - iv. SELECT PLEVEL, PAY+ ALLOWANCE FROM PAYLEVEL WHERE PLEVEL= "P003 ";

3 . **Answer:** [5]

(i) i. What is the use of WHERE clause in SQL? [1]

3 ii. Answer the questions (i) to (v) on the basis of the following tables SHOPPE and ACCESSORIES. [4]

**TABLE: SHOPPE**

Id	SName	Area
S001	ABC Computeronics	CP
S002	All Infotech Media	GK II
S003	Tech Shoppe	CP
S004	Geeks Tecno Soft	Nehru Place
S005	Hitech Tech Store	Nehru Place

**TABLE: ACCESSORIES**

No	Name	Price	Id
A01	Mother Board	12000	S01
A02	Hard Disk	5000	S01

A04	Mouse	300	S01
A05	Mother Board	13000	S02
A06	Keyboard	400	S03
A07	LCD	6000	S04
T08	LCD	5500	S05
T09	Mouse	350	S05
T10	Hard Disk	4500	S03

- To display Name and Price of all the Accessories in ascending order of their Price.
- To display Id and SName of all Shoppe located in Nehru Place.
- To display Minimum and Maximum Price of each Name of Accessories.
- To display Name, Price of all Accessories and their respective SName, where they are available.
- To display name of accessories whose price is greater than 1000.

(ii)

**OR**

- Give the syntax of DROP statement. **[1]**
- Consider the following table STORE. Write SQL commands for the following statements. **[4]**

Table: **STORE**

ItemNo	Item	Scode	Qty	Rate	LastBuy
2005	Sharpener Classic	23	60	8	31-Jun-09
2003	Ball Pen 0.25	22	50	25	01-Feb-10
2002	Gel Pen Premium	21	150	12	24-Feb-10
2006	Gel Pen Classic	21	250	20	11-Mar-09
2001	Eraser Small	22	220	6	19-Jan-09
2004	Eraser Big	22	110	8	02-Dec-09
2009	Ball Pen 0.5	21	180	18	03-Nov-09

- To display details of all the items in the Store table in ascending order of LastBuy.

iii. To display the details of those items whose Suppliers code (Scode) is 22 or Quantity in Store (Qty) is more than 110 from the table Store.

iv. To display the Minimum Rate of items for each Supplier individually as per Scode from the table store.

### Section

3 . Write a program to perform binary search on a list of strings arranged in descending order. [4]

3 4. Write SQL commands for (i) to (v) on the basis of table EMPLOYEE [4]

**TABLE: EMPLOYEE**

5

S NO	NAME	BASIC	DEPARTMENT	DATO FAPP	AGE	SEX
1	KARAN	8000	PERSONNEL	27/03/97	35	M
2	DIVAKAR	9500	COMPUTER	20/01/98	34	M
3	DIVYA	7300	ACCOUNTS	19/02/97	34	F
4	ARUN	8350	PERSONNEL	01/01/95	33	M
5	SABINA	9500	ACCOUNTS	12/01/96	36	F
6	JOHN	7400	FINANCE	24/02/97	36	M
7	ROBERT	8250	PERSONNEL	20/02/97	39	M
8	RUBINA	9450	MAINTENANCE	22/02/98	37	F
9	VIKAS	7500	COMPUTER	13/01/94	41	M
10	MOHAN	9300	MAINTENANCE	19/02/98	37	M

i. Which command will be used to list the names of the employees, who are more than 34 years old sorted by NAME.

a. SELECT NAME FROM EMPLOYEE WHERE AGE>34 ORDER BY NAME;

b. SELECT \* FROM EMPLOYEE WHERE AGE>34 ORDER BY NAME;

c. SELECT NAME FROM EMPLOYEE WHERE AGE>34;

d. SELECT NAME FROM EMPLOYEE AGE>34 ORDER BY NAME;

- ii. Write a query to display a report, listing NAME, BASIC, DEPARTMENT and annual salary. Annual salary equals to BASIC \* 12.
- iii. Insert the following data in the EMPLOYEE table  
11, 'VIJAY', 9300, 'FINANCE', '13/7/98', 35, "M"
- iv. Write a query to count the number of employees, who are either working in PERSONNEL or COMPUTER department.
- v. Write the degree and cardinality of the table EMPLOYEE.

## Section A

# Solutions

1.

**(b)** False

**Explanation:** False

The lists are ordered.

2. **(a)** LIKE operator

**Explanation:** LIKE operator is used in the WHERE clause allows us a search based operation on a pattern.

3. **(a)** s.\_\_getitem\_\_(i)

**Explanation:** It is the correct syntax to call character at index i of string s

4.

**(c)** 50#5

**Explanation:** 50#5

5. **(a)** analog signal

**Explanation:** An analog signal is any continuous signal for which the time-varying feature of the signal is a representation of some other time-varying quantity, i.e., analogous to another time-varying signal. Analog signals produce too much noise. Examples:- Human voice, Thermometer, Analog phones, etc.

6.

**(c)** infi.readline()

**Explanation:** readline() function reads a line from the file pointer position.

7. **(a)** localhost

**Explanation:** localhost

8.

**(b)** DDL (Data Definition Language)

**Explanation:** DDL (Data Definition Language) is the language which performs all the operation in defining structure of relation.

9.

**(b)** read( )

**Explanation:** read( ) function reads the whole file and returns the text as a string.

10. **(a)** None

**Explanation:** None

11.

**(c)** 1

**Explanation:** 1

12.

**(b)** Functions are reusable pieces of programs

**Explanation:** Functions are reusable pieces of programs. They allow you to give a name

13. **(a)** True

**Explanation:** True

14.

**(b)** type conversion

**Explanation:** type conversion

15. 1. LIKE

16.

**(d)** Code Division Multiple Access

**Explanation:** CDMA stands for Code Division Multiple Access. In this, each user is allocated a unique code sequence, that is used to encode/decode the original data.

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

**Explanation:** The **intersection\_update()** method is different from the intersection() method since it modifies the original set by removing the unwanted items, on the other hand, the intersection() method returns a new set removing the unwanted items.

18.

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

**Explanation:** CSV stands for "comma-separated values", which is defined as a simple file format that uses specific structuring to arrange tabular data. It stores tabular data such as spreadsheets or databases in plain text and has a common format for data interchange. In python, the csv module is used to handle the CSV files to read/write and get data from specified columns.

### Section B

19. Answer:

- (i) i. The process of altering the characteristics (amplitude or frequency etc.) of a high-frequency wave called the carrier wave so that it can carry low-frequency information along with it while being transmitted, is called modulation.
- ii. 2G networks primarily involve the transmission of voice information while 3G technology provides the additional advantage of data transfer.

(ii)

**OR**

- i. There are many methods of checking or detecting errors in the data transmitted. The four simplest ones are:
  - i. Single dimensional parity checking
  - ii. Two-dimensional parity checking
  - iii. Checksum
  - iv. Cyclic Redundancy Check (CRC)

20. import MySQLdb

db = MySQLdb.connect("localhost", "Admin", "Ad123", "HMD")

cursor= db.cursor()

```

Null ,
room varchar(6) Not Null , Capacity Numeric(5) Not Null)" " "
cursor.execute(sql)
db.close()

```

21. To = 30 # variable name should be on LHS  
 for K in range(0, To): # : was missing  
if k%4 == 0: # IF should be in lowercase; i.e; if  
 print (K \* 4)  
else: # else should be in lower case  
 print (K + 3)

OR

The above code will give Error because keyword True has been used as variable (in first line of code True = False). We cannot use keywords as variables or any other identifiers.

22. Answer:

- (i) import mysql.connector as identifier\_name  
 e.g.  
 import mysql.connector as mydb  
 (ii) It will add a new record in the database after obtaining values of person-id, and **lastname** from user.

23. Differences between logical error and syntax error are as follows:

Logical Error	Syntax Error
It occurs because of wrong implementation of logic.	It occurs when statements are wrongly written violating rules of the programming language.
With logical errors, the code is syntactically correct and compiler will not show any error message.	With syntax errors, the code is not syntactically correct and compiler will show the error messages.
It produces the output, but undesired.	It does not produce any output.
e.g. in place of (c = a*b); if by mistake (c = a + b); is written, it will be a logical error.	e.g. in place of (a == b); if by mistake (a = b); is written, it will be a syntax error.

OR

In the given code, A is an **int** type variable, which is an immutable type, which means its value cannot change in place (i.e., in the same memory location). So, when the second statement gets executed, the variable no longer points to the same memory as it was in statement 1. So internally it is made to point to a new location which stores its value

24. So, in a way a new A is created after statement 2.



value does not take place in the same memory location for an immutable type.

24. def Readfile():

```
i=open("Employee.dat", "rb+")
x=i.readline()
while(x):
    l=x.split(':')
    if (20000>=float(l[2])<=40000):
        print(x)
    x=i.readline()
```

OR

```
fileObject = open ("an.txt", "r")
for line in fileObject:
    words = line.split()
    for word in words:
        for char in word:
            if (char.isdigit()):
                print(char)
```

25. def get\_ones\_digit(num): # return the ones digit of the integer num

```
ones_Digit = num % 10
```

```
return ones_Digit
```

get\_ones\_digit function returns the digit at one's position of number num.

### Section C

26. Answer:

(i) l = []

```
for i in range(200, 300):
    if(i%7==0) and (i%5!=0):
        l.append(str(i))
print(','.join(l))
```

(ii) **Output**

```
{'d' : 4, 'a' : 1, 'c' : 3, 'b' : 2}
{'d' : 4, 'c' : 3, 'b' : 2}
```

27. def prime(n) :

```
for num in range (2, n) :
    is_prime = 1
    for i in range (2, num):
```

```
if is_prime == 1:
```

```
    print (num)
```

28. i. SELECT P\_Name MAX (SAL)

FROM Programmers;

ii. UPDATE Programmers SET SAL = SAL + 2000 WHERE P\_Name LIKE 'R%';

OR

In DBMS, this row or record is known as a tuple. Hence In DBMS, a tuple is just a row representing some associated data for a certain entity, such as a user, student, or employee. You can see from the figure above that a tuple is a row of information about a single item, such as its name, age, marks, etc.

29. **User define function to display total number of words in a file:**

```
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)
```

30. def binary\_search(sorted\_list, number):

```
    low = 0
```

```
    high = len(sorted_list)
```

```
    found = False
```

```
    while (low < high) and found = False:
```

```
        mid = int((low+high)/2)
```

```
        if sorted_list[mid] == number:
```

```
            print ("Number found at",mid)
```

```
            found = True
```

```
            break
```

```
        elif sorted_list[mid] == number:
```

```
            low = mid + 1
```

```
        else:
```

```
            high = mid -1
```

```
        if low >= high:
```

```
            print ("Number not found")
```

```
            max_range = input("Enter Count of numbers:")
```

```
            numlist = []
```

```
            for i in range(0, max_range):
```

```
                numlist_append(input("Enter number : "))
```

```
number = input("Enter the number")  
binary_search(numlist, number)
```

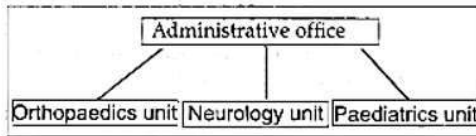
### Section

- 3 . i. Administrative Office is the most suitable location for the main server of this institution to get efficient connectivity.

**D**

1

ii.



- iii. Switch to be installed in each of these building for connecting computers installed within the building
- iv. Topology: Star Topology  
Network Cable Ethernet Cable/Coaxial Cable
- 3 . i. SELECT \* FROM ITEMS ORDER BY INAME ASC;  
ii. SELECT INAME, PRICE FROM ITEMS WHERE PRICE = > 10000 AND PRICE = < 22000;  
iii. SELECT TCODE, COUNT (CODE) FROM ITEMS GROUP BY TCODE;
- 2 iv. SELECT PRICE, INAME, QTY FROM ITEMS WHERE QTY > 150;  
v. SELECT TNAME FROM TRADERS WHERE (CITY = "DELHI") OR (CITY = "MUMBAI")  
vi. SELECT COMPANY, INAME FROM ITEMS ORDER BY COMPANY DESC;
- vii. a. 38000  
1200  
b. 1075000  
c. T03  
d. LED SCREEN 40 DISP HOUSE INC CAR GPS SYSTEM ELECTRONICS sales
- OR
- a. i. SELECT NAME FROM WORKER ORDER BY DOB DESC;  
ii. SELECT NAME, DESIGN FROM WORKER WHERE PLEVEL="P001" OR PLEVEL="P002"; OR  
SELECT NAME, DESIGN FROM WORKER WHERE PLEVEL IN ('P001', 'P002');

- iii. SELECT \* FROM WORKER WHERE DOB BETWEEN '19-JAN-1984' AND '18- JAN-1987';
- iv. INSERT INTO WORKER VALUES (19, "DayaKishore", "Operator", "P003", '19-Sep-2008', 17-Jul-1984');

b. i.	<b>count (PLEVEL)</b>		<b>PLEVEL</b>
	1		P001
	2		P002
	2		P003
ii.	<b>Max (DOB)</b>		<b>Min (DOJ)</b>
	12-Jul-1987		13-Sep-2004
iii.	<b>Name</b>		<b>Pay</b>
	Radhe Shyam		26000
	Chander Nath		12000
iv.	<b>Plevel</b>		<b>Pay</b>
	P003		18000

3 . Answer:

- (i) i. The WHERE clause is used to extract only those records that fulfil a specified criteria.

3

- ii. i. SELECT Name, Price  
FROM ACCESSORIES  
ORDER BY Price;
- ii. SELECT Id, SName  
FROM SHOPPE  
WHERE Area='Nehru Place';
- iii. SELECT MIN (Price) "Minimum Price", MAX(Price) "Maximum Price", Name  
FROM ACCESSORIES  
GROUP BY Name;

FROM ACCESSORIES A, SHOPLIST S  
WHERE A.Id = S.Id;

but this query enable to show the result because A.Id and S.Id are not identical.

v. SELECT Name From ACCESSORIES  
WHERE Price>1000;

(ii)

**OR**

- i. DROP TABLE table\_name;
- ii. i. SELECT \*  
FROM STORE  
ORDER By LastBuy ;
- ii. SELECT ItemNo, Item  
FROM STORE  
WHERE Rate >15 ;
- iii. SELECT \*  
FROM STORE  
WHERE Scode = 22 OR Qty > 110 ;
- iv. SELECT Scode, Min(Rate)  
FROM STORE  
GROUP By Scode;

### Section

```
3 . def bsearch(strarr, str):  
    beg=0  
    last=len(strarr)-1  
    while(beg<=last):  
4 mid=(beg+last)/2  
    if strarr[mid]==str:  
        return mid  
    elif strarr[mid]>=str:  
        beg=mid+1  
    else:  
        last=mid-1  
    else:  
        return False  
    ---Main---  
    N=int(raw_input("Enter no. of elements of the array".))  
    Print ("\n Enter strings in descending order:")  
    Ar=[" "]*N
```

**E**

```
For i in range (N):  
    Ar [i] raw_input ("String"+i+": ")  
Item = raw_input("Enter string to be searched:")  
foundat=bsearch(Ar, Item)  
if foundat:  
    print "\n Element found at", foundat  
else:  
    print "\n String Not Fount"
```

- 3 . i. (a) SELECT NAME FROM EMPLOYEE WHERE AGE>34 ORDER BY NAME;  
ii. SELECT NAME, BASIC, DEPARTMENT, BASIC\*12 "Annual Salary" FROM EMPLOYEE;  
iii. INSERT INTO EMPLOYEE VALUES(11, 'VIJAY', 9300, 'FINANCE', '13/7/98', 35, 'M');
- 5 iv. SELECT COUNT(\*) FROM EMPLOYEE  
WHERE DEPARTMENT='PERSONNEL' OR DEPARTMENT='COMPUTER';  
v. Degree of the given table is 7 and cardinality is 10.