

Solved Sample Paper – 2013
Class – XII
Subject – Informatics Practices (065)

Note : All the questions are compulsory.

1. (a) Differentiate between dedicated and non-dedicated server 2
Ans **Dedicated Server** – it is a computer that is reserved to work only as a server on a network. The task of this server is to help workstations access data, hardware and software over the network.
Non-dedicated server – It is a server that performs function of both as a server and workstation simultaneously on a network. It requires good memory to manage the functioning of both. This type of server shares the resources on a small scale.
- (b) In the www.google.com URL, which of the following part represents the name of the website? 1
Ans google
- (c) Compare bus and ring topology? 2
Ans **Bus Topology** – It is known as linear topology. On the behalf of single cable, all the computers are connected.
Ring Topology – It is known as circular topology. In this topology, each node is connected only to its two neighboring nodes through its two ends.
- (d) Do you prefer using switch over hub? If yes, why and in which circumstances? 2
Ans Yes, switch can be preferred over a hub in situations where there are no restriction on budget. It demands full usages of bandwidth and good communication speed. This can be illustrated on the basis of following reasons:
 1. Both, hub and switch are used to connect multiple computers together but the speed of hub is very less as compared to that of switch.
 2. The computers that are connected in a hub shares a bandwidth but the computers that are connected with switches communicate at full bandwidths.
 3. Hubs are cheaper than switch.
- (e) Which of the following are open source LINUX , MS Window Vista , Python , MySQL , PageMaker. 1
Ans LINUX, Python, MySQL
- (f) What is ogg vorbis? 1
Ans Ogg Vorbis is an open format for audio streaming. It is comparable to other digital formats that are used to store and play digital music such as MP3, VQF, and AAC.
- (g) What is font? Name the parameters on the behalf of it categories. 1
Ans Font – Fonts refers to a group of printable and displayable text characters which have some particular style and size. Parameters are:
 1. Technical specifications
 2. Font configurations
2. (a) Name any two integer data type which store only integer value. 1
Ans Integer Data Types – byte, int, long, short
- (b) What is the use of return statement in method.? 1
Ans The use of return statement is used to return a value.
- (c) What is the basic structure of HTML file? 1
Ans <HTML> , <HEAD> , <TITLE> , <BODY> tags
- (d) Difference between implicit and explicit type conversion. 2
Ans **Implicit Type Conversion** – It is also called automatic conversion. This type of conversion is performed by the compiler. In this conversion data type is promoted.
Explicit Type Conversion – The forced conversion of one data type into another is called as explicit conversion. It is a user-defined type conversion.
- (e) What is an expression? Differentiate between Compound and Boolean/Relational Expression. 2
Ans Expression – It is a combination of variables, operators and constants.

Compound Expressions – Those expressions that are created by combining two or more simple expressions with the help of operators. Example : $(x+y) * (u+v)$, $(p>q) || (q>r)$

Boolean/Relational Expressions - The Boolean expression is also called logical expression. They either result in true or false.

(f) Differentiate between Exit-Controlled Loop and Entry-Controlled Loop. 2

Ans Entry-Controlled Loop – Those loops where condition is checked before entry in the body of loop, called Entry-Controlled loops. Example : While and for 2

Exit-Controlled Loop – The loop where condition is checked at the end of the loop, called Exit-Controlled Loop. Example: do-while

(g) Name two jump statements. 1

Ans break, continue, return

3. (a) Which command is used to display the list of existing tables? 1

Ans Show tables.

(b) Wilson is creating a table in which he has created a column named city. In this column he may or may not contain value. He is confused which keyword he should use. Help him. 1

Ans Unique

(c) Difference between single row function and multiple row function. 2

Ans Single Row Functions – Those function which execute for every row of a table.

Multiple Row Functions – Those function which execute for more than one row.

(d) What is SQL? Write down its different categories with example also? 2

Ans SQL stands for Structure Query Language. It is a relations data base management system.

1. DDL (Data Definition Language) – Alter Table, Drop Table, Create Table etc.

2. DML (Data Manipulation Language) – Insert, Delete, Update etc.

3. TCL (Transaction Control Language) – Commit, Rollback, savepoint etc.

(e) The City column of table ‘Student’ is given below- 2

| |
|---------|
| CITY |
| DELHI |
| JHAJJAR |
| MUMBAI |
| GOHANA |

i. SELECT city from student where city LIKE = “ %j%” ;

Ans JHAJJAR

ii. SELECT city from student where city LIKE = “ %A” ;

Ans GOHANA

(f) A table “FAMILY” in a database has 10 columns and no record. What is the degree and cardinality of this table? If five records can be added, then what is its degree and cardinality? 2

Ans Situation 1 – Degree = 10 and Cardinality = 0

Situation 2 – Degree = 10 and Cardinality = 5

(a) What will be the contents of jTextField after executing the following statement? 1

jTextField.setText (‘B’ + ‘a’)

Ans This statement will display the error. Correct statement should be jTextField.setText (“B” + “a”)

(b) Predict the output for the following code. 2

```
int l, n = 20;
for( l = 1 ; l < n; n-- ) {
    System.out.print(l);
    l = l + 2;
}
```

Ans 1 3 5 7 9 11 13

(c) What is constructor. Give example. 2

Ans Constructor is a special function of a class whose name is same of its class.

```
Class Student
{
    private int rl, marks;
    public Student ( )
    {
        rl = 10;
        marks = 90;
    }
}
```

(d) Differentiate between Container and child control. 1

Ans Child Control – Those control which work individually. They can't contain any other control.
 Container Control – Those controls which contain other controls.

(e) Identify the errors and tell the output (jTF1 = 20 , jTF2 = 10) 2

(i) `int m = Integer.parseInt(jTF1.getText() + jTF2.getText());`

Ans `int m = Integer.parseInt(jTF1.getText() + jTF2.getText());`

(ii) `JOptionPane.showMessageDialog(null, " " + (m +1));`

Ans `JOptionPane.showMessageDialog(null, " " + (m +1));`

(f) What will be the value of A and B after execution of the following code? 2

```
int A = 100, B;
for( B=10; B<=12; B++)
{ A+=B; }
JOptionPane.showMessageDialog(null, "A:" + A + "B:" + B + " ");
```

Ans A:133 B:13

(g) Virus software Hut has developed the following Interface as shown below.

Virus S/w Hut

Name of customer

Bill amount

Cash
 Credit Card
 Cheque

Discount

Net Amount

If Bill amount is > 10,000 than discount is as follow

| Payment Mode | Discount |
|--------------|----------|
| Cost | 15 % |
| Credit Card | N/L |
| Cheque | 10 % |

i. Write the code to make the TextFields for Discount & Net Amount in editable. 1

Ans `discountTF.setEditable(false);`
`netamountTF.setEditable(false);`

ii. Write code to “Calculate Discount” button as per given criteria and discount and net amount should be displayed in TextField. 3

```

Ans private void calculatebuttonActionPerformed(java.awt.event.ActionEvent evt) {
double billamt=0.0;
double disc=0.0;
double net=0.0;
billamt=Double.parseDouble(billTF.getText());
if(billamt > 10000)
{
if(cashRB.isSelected())
disc=billamt*15/100;
if(creditcardRB.isSelected())
disc=0;
if(chequerB.isSelected())
disc=billamt*10/100;
}
net=billamt-disc;
netamountTF.setText(" " + net);
discountTF.setText(" " + disc);
}
    
```

iii. Write code for “Stop” button to close the interface. 1

```

Ans private void stopbuttonActionPerformed(java.awt.event.ActionEvent evt) {
System.exit(0);
}
    
```

4. (a) What do you understand by primary key and candidate key. 2

Ans Primary Key – Which uniquely identify the records in a table.
Candidate Key – It is a combination of all the columns which have the unique values and can serve as a primary key.

(b) Write the output of following SQL queries. 2

i. SELECT ROUND(6.88,2) ;

Ans 0

ii. SELECT MID(‘Discovery Channel’,4,6) ;

Ans covery

iii. SELECT DAYOFMONTH (‘2011-03-30’);

Ans 30

iv. SELECT TRUNCATE (7.727,1);

Ans 7.7

(c) Consider the table STUDENT given below, write SQL Commands for (i) to (iv) and output for (v) to (viii)

| RollNo | Name | Class | DOB | Sex | City | Marks |
|--------|---------|-------|----------|-----|--------|-------|
| 1 | Nanda | X | 6/6/95 | M | Agra | 551 |
| 2 | Saurabh | XII | 7/5/93 | M | Mumbai | 462 |
| 3 | Sanal | XI | 6/5/94 | F | Delhi | 400 |
| 4 | Trisla | XII | 8/8/95 | F | Mumbai | 450 |
| 5 | Store | XII | 8/10/95 | M | Delhi | 369 |
| 6 | Marisla | XI | 12/12/94 | F | Dubai | 250 |
| 7 | Neha | X | 8/12/95 | F | Moscow | 377 |
| 8 | Nishant | X | 12/6/95 | M | Moscow | 489 |

(i) To Display all information about class XII students. 1

- Ans **Select * from STUDENT where class = 'XII';**
- (ii) List the name of male student of class X. 1
- Ans **Select Name from STUDENT Sex='M' and class='X';**
- (iii) List names all classes of all students in descending order of DOB. 1
- Ans **Select Class from STUDENT order by DOB desc;**
- (iv) To count the number of student in XII Class of Mumbai city. 1
- Ans **Select Class, count(*) from STUDENT where Class='XII' and City='Mumbai';**
- (v) SELECT DISTINCT(Sex) FROM Student. ½
- Ans **M**
F
- (vi) SELECT AVG(Marks) FROM Student GROUP BY Sex. ½
- Ans **M = 467.75**
F = 369.25
- (vii) SELECT COUNT(*)FROM Student where Class = 'XI' ½
- Ans **2**
- (viii) SELECT MAX(Marks) FROM Student. ½
- Ans **551**

5. (a) Write an SQL query to create the table books with following structure. 2

| Field | Type | Constraints |
|----------|----------------|-------------|
| BookID | Varchar (5) | Primary Key |
| BookName | Varchar (20) | |
| Author | Varchar (20) | |
| Price | Decimal (5, 2) | |

Ans **Create Table Books (BookID varchar(5) primary key, BookName varchar(20), Author varchar(20), Price Decimal(5,2));**

(b) Following two tables are shown below are preset in database-

BOOK

| EID | EbookName | Author |
|-----|----------------|---------|
| 3 | Internal terms | Okhla |
| 4 | RDBMS | Steve |
| 5 | NetBeans | Gosling |

COST

| Subj ID | EID | Cost |
|---------|-----|------|
| E40 | 1 | 2000 |
| E41 | 4 | 1700 |
| E42 | 3 | 1800 |
| E43 | 5 | 1250 |

- i. Identify the foreign key column in the table COST. 2
- Ans **There is no foreign key.**
- ii. Check every value in EID column of both in table. Do you find any discrepancy. 2
- Ans **Yes because in the EID column in table COST value 1 is not match with the column EID in the table BOOK.**

(c) Consider the tables product and client give below –

Product

| PID | ProdName | Manufactures | Price |
|-------|----------|--------------|-------|
| T P01 | Pen | Cello | 5 |
| T P02 | Gel pen | Luxar | 10 |
| T P03 | Ink pen | Luxar | 10 |

| | | | |
|-------|--------|--------|---|
| T P04 | Pencil | Natraj | 2 |
| T P05 | Sketch | Camel | 2 |

Client

| CID | CliName | City | PID |
|-----|---------|----------|------|
| 01 | Rakesh | Delhi | TP01 |
| 02 | Prakash | Mumbai | TP05 |
| 03 | Suresh | Delhi | TP03 |
| 04 | Dinesh | Delhi | TP02 |
| 05 | Pravesh | Banglore | TP04 |

- i. To Display the details of products whose Price is in the range of 6 to 10 (Both value included) 2

Ans Select * from Product where Price between 6 and 10;

- ii. To display client name, city from table client and ProdName and price from table product. 2

Ans Select CliName, City, ProdName,Price from Client, Product where Client.PID=Product.PID;

- iii. To increase the price of all products by 10. (Produce the output only) 2

Ans Update Product set price=price+10;

Output is:

15

20

20

12

12

6. (a) What is front-end? 1

Ans It is a software through which a user can interact directly i.e. netbeans java

- (b) Give one societal impact of e-business. 1

Ans To buy and purchase any item online.

- (c) Anu works for a Hotel. Sky wants to create controls on a form for the following function. 2

Choose appropriate controls from TextField, Label , RadioButton , CheckBox , List , ComboBox , Button and write in the third column.

| S.No. | Controls use to | Control |
|-------|----------------------|--------------|
| 1 | Select room type | Radio Button |
| 2 | Enter customers name | TextField |
| 3 | Enter arrival date | TextField |
| 4 | To book reck | List |

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