Sample Paper – 2014
Class – XII
Subject – Informatics_practices

Note: This question paper is strictly based on board's pattern.

SECTION : A

Q1.
(a) Mr. Saurabh Singhal wants to protect his company's local area network from unauthorized access. Write the name of a system(Software/Hardware), which he should install to do the same. (**1 Mark**)

(b) Arrange the following communication channels in ascending order of their data transmission rates.
Ethernet Cable, Optical fiber, telephone Cable, Co-axial cable. (**1 Mark**)

(c) Identify the type of topology from the following . (**2Marks**)
(i) In it, each node is connected with the help of single co-axial cable.
(ii) In it, each node is connected with the help of independent cable with the help of a central switching.

(d) Name the protocols for sending and receiving e-mails. (**1 Mark**)

(e) What type of address is the following ? Also define it. (**2Marks**)
20:B9:F1:63:2F:FB

(f) Explain the difference between proprietary software and open source software on the basis of Customizability of the software. (**1 Mark**)

(g) What is Unicode ? Which Indian languages are encoded in Unicode? (Write name of 4 languages)(**2Marks**)

Q2.
(a) What will be the contents of jTextField1 and jTextField2 after executing the following code: (**2 marks**)

```
String name1= "Welcome to IP";
name1= name1.toLowerCase( );
String name2= name1.replace(' ', '!');
jTextField1.setText(name1);
jTextField2.setText(name2);
```

(b) Rewrite the following program code using for loop: (**2 marks**)
```
int i =1, sum = 0;
while ( i < 10)
{
```

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```
        sum + = i;
        i + = 2;
    }
```

(c). What do you understand by Tags in HTML? Explain different types of tags using suitable example. **(1 Mark)**

(d). What will be the contents of jTextArea1after executing the following code(Assuming that the jTextArea1 had no contents before executing this code) ? (**2 marks**)

```
for(int X = 1; X <= 5; X ++)
{
        jTextArea1.setText( jTextArea1.getText() + " " +Integer.toString( X * X) );
}
```

(e) Identify the output in the following code where num1TF contains "12" and num2TF contains "34". (**1**)

```
int value= Integer.parseInt(num1TF.getText( ) + num2TF.getText( ));
JOptionPane.showMessageDialog (null," " + (value+1));
```

(f) Explain the difference between <OL. And <UL> tags of HTML using suitable example. **(2 Marks)**

Q3.

a) Which MySQL command helps you to create database if it does not exist? (**1Mark**)

b) Which keyword eliminates the duplicate (redundant) rows from a query result ? (**1 Mark**)

c) Rahul created a table named **Item**, he wants to see those Items whose price is between 200 and 800. He
        wrote a query-
                SELECT * FROM Item WHOSE price>200 OR <800;
   Help Rahul to run the query by removing the errors from the query by rewriting it. (**1 Mark**)

d) Shraddha wants to implement referential integrity in the tables being created. Which constraint should be
        used by Shraddha while doing so? (**1 Mark**)

e) What is the role of primary key in the table? Explain with the help of suitable example. (**2 Marks**)

f) The Item_no and Cost column of a table "ITEMS" are given below . predict the output for the queries given below. (**2 Marks**)

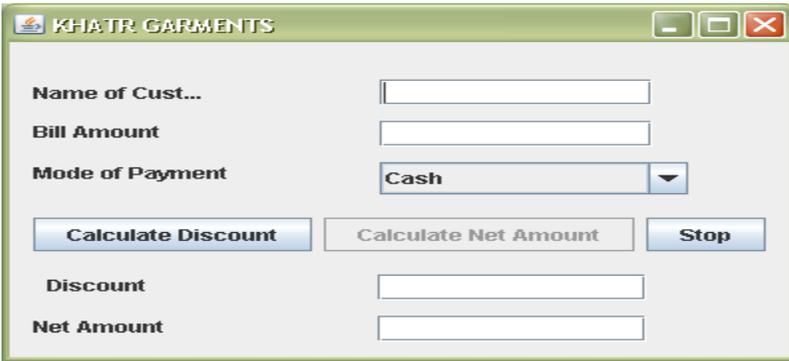| ITEM_NO	COST
101	5000
102	NULL
103	4000
104	6000
105	NULL

(i) Select AVG(COST) from ITEMS;

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(ii) Select COST +100 from ITESM Where ITEM_NO >102;

g) Define candidate key and Alternate Key. (**2 Marks**)

SECTION : B

Q4. (a) Read the following case study and answer the questions that follow :

Khatri garments has developed a GUI application for their company as shown below :

The company accepts payments in 3 modes – cash , cheque and credit card. The discount given as per mode of payment is as follows.

Mode of Payment	Discount
Cash	8%
Cheque	7%
Credit Card	Nil

If the bill amount is more than 15000 then the customer gets an additional discount of 10% on Bill amount.

(i) Write the code to make the textfields for discount (discountTF)and net Amount (netamountTF) uneditable.(**1 Mark**)
(ii) Write code to do the following :
(a) When "Calculate Discount" button is clicked the discount should be calculated as per the given criteria and it should be displayed in the discount textfield. Calculate Netamount button should also be enabled. (**2 Marks**)
(b) When " Calculate Net Amount " button is clicked the net amount should be calculated and it should be displayed in the net amount textfield. (**2 Marks**)

(b)predict the output of following code fragement : (**2 Marks**)
```
int sum=1;
for( int i =0; i<=10; i +=2)
{
        sum = sum + i++;
}
System.out.println("Sum = "+sum);
```

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(c) rewrite the following code fragement using switch case statement. **(2 Marks)**

```
String ans = new String();
if(day ==1)
        ans="Start of Week";
 else if(day>=2&& day <=5)
        ans= "Weekdays";
else if(day ==6 || day==7)
        ans="Weekend";
else
        ans='Wrong Day";
System.out.println(ans);
```

(d) What is significance of following properties of a text area? (a) lineWrap (b) wrapStyleWord (**1 Mark**)

(f). Differentiate between Call by Value and Call by Reference ? (**1 Mark**)

(g). What is a Constructor ? List some of the special characteristics of constructor function. (**2 Marks**)

(h)observe the following code carefully and find which statement will never get executed in the code?   (**1 Mark**)

```
int I =1;                                              //Statement 1
do                                                     //Statement 2
{                                                      //Statement 3
    if( I >13)                                         //Statement 4
        jTextField1.setText("It will print something");   //Statement 5
    else                                               //Statement 6
        jTextField1.setText("It will print nothing");  //Statement 7

     I = I +3;                                         //Statement 8
}while ( I <=15);                                      //Statement 9
```

(i) Given a String object namely 'Subject', having value as "1234" stored in it. What will be result of the following ? **(1 Mark)**

JOptionPane.showMessageDialog(null, " " + Subject.length() * Integer.parseInt(Subject));

Q5. (a) Write SQL commands for the following on the basis of given table CLUB : **(7 Marks)**

Table : CLUB

COACH_ID	COACHNAME	AGE	SPORTS	DATEOFAPP	PAY	GENDER
1	KUKREJA	35	KARATE	27/03/1996	1000	M
2	RAVINA	34	KARATE	20/01/1998	1200	F

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3	KARAN	34	SQUASH	19/02/1998	2000	M
4	TARUN	33	BASKETBALL	01/01/1998	1500	M
5	ZUBIN	36	SWIMMING	12/01/1998	750	M
6	KATAKI	36	SWIMMING	24/02/1998	800	F
7	ANKITA	39	SQUASH	20/02/1998	2200	F
8	ZAREEN	37	KARATE	22/02/1998	1100	F
9	KUSH	41	SWIMMING	13/01/1998	900	M
10	SHAILYA	37	BASKETBALL	19/02/1998	1700	M

1. to show all information about the squash coaches in the club.
2. to list name of all coaches in the reverse order of their date of appointment .
3. to display a report , showing coachname, pay, age and bonus (15% of pay) for all the female coaches.
4. Give the output of following SQL statements :
    (a) Select LCASE(SPORTS) from club;
    (b) Select MOD(AGE,5) from Club where gender ='F';
    (c) Select POWER (3,3) from club where SPORTS= ' KARATE';
    (d) Select SUBSTR (coachname, 1,3) from club where dateofapp > '1998-01-31';
5. Give the output of following SQL statements :
    (a) Select COUNT (Distinct Sports) from club;
    (b) Select MIN(Age) from club where gender = 'M';
    (c) Select AVG(Pay) from club where sports = 'KARATE';
    (d) Select SUM (Pay) from club where dateofapp > '1998-01-31';

(b) Give the Output : (3 Marks)

(i) Select mod(round(120.67),5);

(ii) Select dayofYear(curdate());

(iii) Select truncate (1997.197, -2);

Q6. (a) Write SQL queries for the following :(**2 Marks)**

(i) Create table Department as per following Table Instance Chart.

Column Name	Dept_ID	Dept_Name
Key Type	Primary	
Nulls/Unique		NOT NULL
Data Type	NUMBER	VARCHAR
Size	2	20

(ii) Create table Employee as per following Table Instance Chart.

Column Name	EmpID	EmpName	EmpAddress	EmpPhone	EmpSal	DeptID

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Key Type	Primary					Foreign
Nulls/Unique		NOT NULL				
Foreign Key table						Department
Foreign Key Column						Dept_ID
Data Type	NUMBER	VARCHAR	VARCHAR	VARCHAR	NUMBER	VARCHAR
Size	6	20	30	10	9,2	2

(b) Consider the following CONSINOR and CONSIGNEE tables. Write SQL commands for the statements (1) to (4) and give outputs for SQL queries (5) to (8). **(8 Marks)**

Table : CONSIGNOR

cnorid	Cnorname	Cnoraddress	City
ND01	R Singhal	24, ABC Enclave	New Delhi
ND02	Amit Kumar	123, Palm Enclave	New Delhi
MU15	R Kohli	5/A, South Street	Mumbai
MU50	S Kaur	27-K, Westland	Mumbai

Table :CONSIGNEE

Cneeid	Cnorid	Cneename	CneeAddress	CneeCity
MU05	ND01	Rahul Kishore	5, Park Avenue	Mumbai
ND08	ND02	P Dhingra	16/J , Moore Enclave	New Delhi
KO19	MU15	A P Roy	2A, Central Avenue	Kolkata
MU32	ND02	S Mittal	P 245, AB Colony	Mumbai
ND48	MU50	B P Jain	13, Block D, A Vihar	New Delhi

1. To display the names of all consignors from Mumbai.
2. To display the cneeid, cnorname, cnoraddress, cneename, cneeaddress for every consignee.
3. To display consignee details in ascending order of cneename.
4. To display number of consignors from each city.
5. Select Distinct cneecity from consignee;
6. select A.cnorname, B.cneename from consignor A , consignee B where A.cnorid= B.cnorid and b.cneecity='Mumbai';
7. select cneename, cneeaddress from consignee where cneecity not in ('Mumbai','Kolkata');
8. select cneeid, cneename from consignee where cnorid= 'MU15' or cnorid= 'ND01';

SECTION : C

Q7.
(a) What benefits does an e-learning offer to its user. (**1 Mark**)

(b) Define 2 Social impacts of e-business. (**2 Marks**)

(c) Priyanka works for the Customs Department. She wishes to create controls on a form for the following functions. Choose appropriate controls from Text box, Label, Radio Button , Check Box, List Box , Combo Box, Command Button and write the answer in the third column. (**2 Marks**)

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S. No.	Control Used To:	Control
1	Enter Address	
2	Select Marital Status	
3	Choose City from a List of Cities	
4	Reset the Form	

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