

INTERNATIONAL INDIAN SCHOOL, DAMMAM

First Term Examination- June 2014

Time: 3 Hrs

Informatics Practices - Class XII

Marks: 70

Set A

1. (a) \_\_\_\_\_ is a short range line of sight medium. (1)  
(i) Microwave (ii) Radio wave (iii) Infrared (iv) Bluetooth
- (b) Name encoding systems that includes Indian language scripts. (1)
- (c) What is meant by file access permissions? (1)
- (d) What is OggVorbis? (1)
- (e) XYZ College has connected the various departments in their campus in a network. They are facing the problem of signal drop. (2)  
(i) What device can they use to solve this?  
(ii) What is the type of network that they would be using for this (LAN, MAN, PAN or WAN)?
- (f) Differentiate MAC address and IP address. (2)
- (g) Distinguish free software and freeware. (2)
2. (a) While designing a GUI application, Sharon included a list on the form. Now she wants to restrict the user to select only one item from it. Which property of JList will she use for this and how? (1)
- (b) When would you prefer a switch statement over if statement? (1)
- (c) What is the output of the following code? (1)  

```
int x=25, y;  
y=x++;  
JOptionPane.showMessageDialog(null, ""+x+y);
```
- (d) How is a label different from a textfield? (1)
- (e) What will be the values of x and y after execution of the following code: (2)  

```
int x=20, y;  
for (y=2; y<10; y+=2)  
x=x+ y++;
```
- (f) What is operator overloading? Give an example. (2)
- (g) Write the java code that takes the cost price of an item in a textfieldcpTF and profit percent in a textfieldpercTF, and calculates its selling price (using the formula  $sp=cp+cp*profitpercent$ ) and displays it in a textfieldspTF. (2)
3. (a) Write the MySQL command to enter the database 'School'. (1)

- (b) The City and ACount attributes of a relation 'Details' is given below: (2)

City	ACount
ABC	1200
AXY	1320
NULL	1250
XYZ	0

Write the output of the following queries:

- i) `SELECT AVG(ACount) FROM Details;`
- ii) `SELECT MAX(ACount) FROM Details WHERE City NOT LIKE 'A%';`

- (c) Mr. Ramesh wants to remove the table 'Stationery' from the database 'Market'. Write the MySQL command to do so. (1)

- (d) A relation 'Staff' has an attribute 'Salary'. Write queries to: (2)
- i) Round off Salary to the nearest hundreds. (i.e. 11375.45 will result in 11400)
  - ii) Truncate off the decimal part. (i.e. 11580.75 will result in 11580)

- (e) Differentiate SUBSTR() and INSTR() (2)

- (f) Correct the MySQL statement: (2)
- ```
SELECT * FROM Doctors WHERE Speciality=NULL &&Dept='%ics'
ORDER BY sex DESC AND JoinDate ASC
```

4. (a) How many times will the following loop be executed? What will be the value of i after the loop completes execution? (2)

```
int i=4;
while(i>0)
{
System.out.println(i++);
i-=3;
}
```

- (b) What will be displayed in the Text Area resTA after executing the following loop? (2)
- ```
for(int i=5;i>1;i--)
resTA.setText(resTA.getText()+"\n"+Integer.toString(i*i));
```

- (c) What will be the contents of the text field jTF1 after the following code is executed? (2)
- ```
int p=25, q=10;
```

```
if(p>15)
{
jTF1.setText("Good");
if(q>8)
```

```

        jTF1.setText("Better");
    }
    else
        jTF1.setText("Best");

```

(d) Is a string containing single character same as char? Explain (1)

(e) Write Java statement to store the temperature value (with fractional part) entered by the user in a text field jTF1 in a variable 'temp' of appropriate numeric type. (1)

(f) Rewrite the following code using switch statement: (2)

```

char ch;
if(ch=='A' || ch=='a')
    JOptionPane.showMessageDialog(null, "First Grade");
else if(ch=='B' || ch=='b')
    JOptionPane.showMessageDialog(null, "Second Grade");
else if(ch=='C' || ch=='c')
    JOptionPane.showMessageDialog(null, "Third Grade");
else JOptionPane.showMessageDialog(null, "Wrong response");

```

(g) What will be the contents of jTextField1 and jTextField2 after executing the following code: (2)

```

String txt1= "FIFA World Cup 2014";
jTextField1.setText(txt1.substring(5,10));
double num=6.347;
jTextField2.setText(""+Math.round(num*10)/10.0);

```

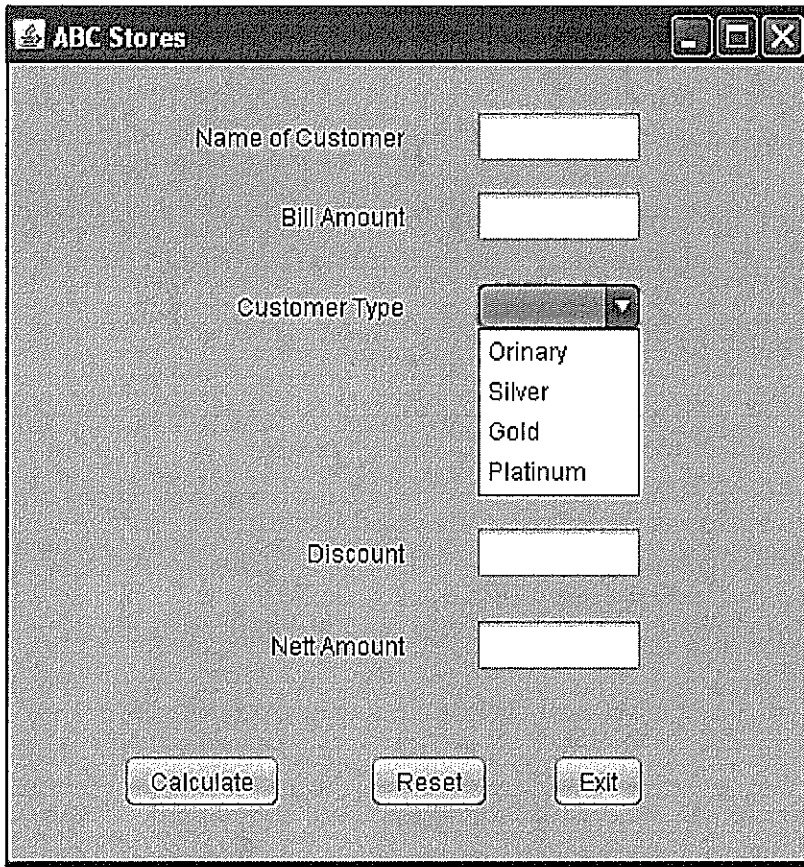
(h) Rewrite the following code after correcting the errors(if any): (2)

```

Inti;
for(i=0;i<=10,i++);
{
    if(i%2=0)
resLbl.setText("Even no");
    else
resLbl.setText("Odd no");
}

```

(i) Consider the following screen shot and answer the questions given below:



| Variable Name | Control Type | Remarks                                    |
|---------------|--------------|--------------------------------------------|
| nameTF        | JTextField   | To enter the name of the customer.         |
| amtTF         | JTextField   | To enter the bill amount                   |
| typeCmb       | JComboBox    | To select the customer type                |
| discTF        | JTextField   | To display the discount amount             |
| netTF         | JTextField   | To display the nett amount                 |
| calcBtn       | JButton      | To calculate the discount and nett amount  |
| resetBtn      | JButton      | To clear the textfields and reset typeCmb. |
| exitBtn       | JButton      | To exit the application.                   |

The discount rates are as follows:

| Customer Type | Discount % |
|---------------|------------|
| Ordinary      | 5          |
| Silver        | 10         |
| Gold          | 15         |
| Platinum      | 20         |

Write the event handler codes for:

i) calcBtn to calculate discount ( $\text{bill amount} \times \text{discpercent} / 100$ ) and nett amount ( $\text{bill amount} - \text{discount}$ ) (3)

ii) resetBtn to clear textfields and reset typeCmb so that no item is displayed. (2)

iii) exitBtn to display a message "Thank you" in a dialog box and exit the application. (1)

5. (a) What do you mean by aggregate functions? How do aggregate functions handle NULL values? (2)
- (b) How is HAVING clause different from WHERE clause? (2)
- (c) What are the different types of SQL commands? Explain each (2)
- (d) Sana has created a table Books (BookID, Title, Author, Price). Write SQL queries to: (2)
- Display the last five characters of Author's name of each Book.
  - The position of the word 'Prince' in the Title of each book.
- (e) Write the output of the following queries: (4)
- `SELECT ROUND(POW(2, -3), 2);`
  - `SELECT UCASE(SUBSTR('Marketing Fest', 4, 6));`
  - `SELECT DAYOF YEAR('2014-02-07');`
  - `SELECT DAYNAME(CURDATE());`
- (f) Consider the table given below and write MySQL queries for questions (i) to (iv) and outputs for queries (vi) to (viii) (8)

**Employee**

| <b>Id</b> | <b>Name</b>   | <b>Dept</b> | <b>Hiredate</b> | <b>Category</b> | <b>Gender</b> | <b>Salary</b> |
|-----------|---------------|-------------|-----------------|-----------------|---------------|---------------|
| 1         | Manoj Gupta   | D1          | 1994-03-17      | Clerk           | M             | 25000         |
| 2         | AjithKumar    | D2          | 1990-02-12      | Cashier         | M             | 20000         |
| 3         | Rini Thomas   | D3          | 1980-05-16      | Manager         | F             | 30000         |
| 4         | John Samuel   | D3          | 1989-10-16      | Clerk           | M             | 25000         |
| 5         | AshaParekh    | D4          | 1990-08-01      | Cashier         | F             | 22000         |
| 6         | Sarbani Ray   | D5          | 1980-03-17      | Cashier         | F             | 21000         |
| 7         | AnushaKarthik | D6          | 1994-09-02      | Clerk           | F             | 27000         |
| 8         | VarshaNair    | D4          | 1980-11-17      | Salesman        | F             | 24500         |

- To display the average salary of clerks and cashiers.
- To count the employees gender wise.
- To display the ids and names of employees earning in the range 20000 to 25000 (both limits inclusive).
- To add a row (9, 'Seema Jha', 'D5', '1994-07-12', 'Manager', 'F', 30000)
- `SELECT Name FROM Employee WHERE Category LIKE '%man%';`
- `SELECT COUNT(DISTINCT Dept) from Employee;`
- `SELECT MIN(Salary) FROM Employee GROUP BY Dept HAVING COUNT(*) > 2;`
- `SELECT Name FROM EMPLOYEE WHERE Gender = 'M' ORDER BY Hiredate;`

