

**KENDRIYA VIDYALAYA SANGATHAN MUMBAI REGION**  
**SESSION ENDING EXAMINATION - 2014-15**  
**INFORMATICS PRACTICE**

**Time : 3 hours**

**CLASS XI**

**Max Marks : 70**

**General Instructions:**

- Write proper question number.
- Answer all the questions.
- Section A consists 30 Marks; Section B & C consists 20 Marks each
- Question paper consists of 5 pages.
- Programming language: Java
- Database Query Language : SQL

| <b>SECTION - A</b> |   |           |
|--------------------|---|-----------|
| <b>I</b>           | <b>Answer the following questions</b>   | <b>10</b> |
| 1.                 | Write and explain different components of CPU?  | 2         |
| 2.                 | Expand following terms:<br>a) OCR    b) LCD    c) DMP    d) USB   | 2         |
| 3.                 | Differentiate between Hardware and Software.  | 2         |
| 4.                 | Define utilities? Write any four.   | 2         |
| 5.                 | A system designed to prevent unauthorized access to or from a private network.  | 1         |
| 6.                 | What are the three different types of computer.   | 1         |
| <b>II</b>          | <b>Answer the following questions</b>   | <b>10</b> |
| 1.                 | Which graphical control of Java used to select or add new item in drop-down list.   | 1         |
| 2.                 | What do you means by WORA characteristics of java.  | 2         |
| 3.                 | How can you declare variable in Java for the following-<br>a) If you want to store the name of an employee<br>b) If you want to store salary of an employee | 2         |
| 4.                 | What benefits does an e-business offer to an organization? Write any four.  | 2         |
| 5.                 | Define e-governance.  | 1         |
| 6.                 | Define e-learning? Explain any two benefits.  | 2         |
| <b>III</b>         | <b>Answer the following questions</b>   | <b>10</b> |
| 1.                 | Define the following terms in respect of RDBMS:<br>a) Primary key<br>b) Foreign key   | 2         |
| 2.                 | Differentiate between DEFAULT constraint and CHECK Constraint of the database table with example.   | 2         |
| 3.                 | What will be the output of following Queries :<br>a) <code>SELECT LOWER(CONCAT('Informatics','Practices'));</code>  | 2         |

|                    |  |           |
|--------------------|--|-----------|
|                    | b) SELECT INSTR('INFORMATICS PRACTICES','OR');   |           |
| 4.                 | Differentiate between DML and DDL commands of SQL.   | 2         |
| 5.                 | Rohan/Rohita wants to create a table SCHOOL which can store Roll_No,Name, Address & percentage in SQL. Write query to create SCHOOL table.   | 2         |
| <b>SECTION - B</b> |  |           |
| <b>IV</b>          | <b>Answer the following questions</b>  | <b>08</b> |
| 1.                 | <p>Give the value of N after execution of following Java code:</p> <pre> int A=12; int B=14; int N=3; int M=4; while(A&lt;=B) { if (A%2==0) N=N+M; else N=N-M; A++; } System.out.println("Value of N:-",+N); </pre>  | 2         |
| 2.                 | <p>Rewrite the following if-else segment using switch-case statement</p> <pre> int No;  if(No==1)  { System.out.println("ONE");}  else if((No==2)    (No==3)){  System.out.println("TWO or THREE");}  else  System.out.println("OTHER THEN ONE / TWO /THREE");} </pre> | 2         |
| 3.                 | <p>The following code has some error(s). Rewrite the correct code underlining all the corrections made:</p> <pre> p = 2  While { p &lt; 25 }  ( System.out.print ("n" + p );  p . . ; </pre>   | 2         |

```
)OptionPane.showMessageDialog("Loop Complete");
```

4. Write a program using Java to print following formatted output: 2

a) @  
@@  
@@@  
@@@@  
@@@@@

### SECTION - C

V Answer the following questions 12

Ms. Shalini works in a shopping mall. To calculate net payable amount she has developed the following GUI in NetBeans.

The screenshot shows a Java Swing window titled "Customer Billing". It has a standard title bar with minimize, maximize, and close buttons. The window contains the following elements:

- Select Item:** A dropdown menu currently showing "Trousers".
- Payment Type:** A group box containing three radio buttons: "Cash", "Debit Card", and "Credit Card".
- Member:** A checkbox labeled "Member".
- Input Fields:** Four text input fields labeled "Enter Quantity", "Enter Price", "Discount", and "Net Payable Amount".
- Buttons:** Three buttons at the bottom: "Calculate", "Clear", and "Exit".

The shop accepts payments in three modes- Cash, Debit Card, Credit Cards. The discount given as per mode of payment is as follows-

| Mode of payment | Discount |
|-----------------|----------|
| Cash            | 12%      |
| Debit Card      | Nil      |
| Credit Card     | 8%       |

If the Member check box is checked then the customer gets an additional discount of 5% on net payable amount.

1. Write the code to make the textfields for Discount( txtDiscount ) and Net 2

|  | Payable (txtNetPayable) uneditable.   |             |                |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
|--|---|-------------|----------------|------|------------|---------|--------|---|-------------|------|---------|----|----------|---------|--------|---|----------------|--------|---------|----|--|-------|---------|---|--|--|
|  | Write code to do the following:   |             |                |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
| 2.   | a) When Calculate button is clicked the discount and net payable amount is calculated as per the given criteria and displayed in discount and net payable text boxes.   | 4           |                |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
|  | b) When Clear button is clicked all the text boxes should be clear & Close the application when Exit button is pressed.   | 2           |                |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
| 3.   | Write a Java code to display whether entered number is prime or not.  | 4           |                |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
| <b>VI Answer the following questions based on the table structure given below:</b> |   | <b>10</b>   |                |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
| 1.   | Write an SQL query to :<br>Create the table 'School' with the following structure.  | 2           |                |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
|  | <table border="1"> <thead> <tr> <th>Column Name</th> <th>Data Type</th> <th>Size</th> <th>Constraint</th> </tr> </thead> <tbody> <tr> <td>Roll_No</td> <td>number</td> <td>4</td> <td>Primary Key</td> </tr> <tr> <td>Name</td> <td>varchar</td> <td>20</td> <td>Not Null</td> </tr> <tr> <td>Stipend</td> <td>number</td> <td>7</td> <td>Greater than 0</td> </tr> <tr> <td>Stream</td> <td>varchar</td> <td>15</td> <td></td> </tr> <tr> <td>Grade</td> <td>varchar</td> <td>1</td> <td></td> </tr> </tbody> </table> | Column Name | Data Type      | Size | Constraint | Roll_No | number | 4 | Primary Key | Name | varchar | 20 | Not Null | Stipend | number | 7 | Greater than 0 | Stream | varchar | 15 |  | Grade | varchar | 1 |  |  |
| Column Name  | Data Type   | Size        | Constraint     |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
| Roll_No  | number  | 4           | Primary Key    |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
| Name   | varchar   | 20          | Not Null       |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
| Stipend  | number  | 7           | Greater than 0 |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
| Stream   | varchar   | 15          |                |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
| Grade  | varchar   | 1           |                |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
|  | Table:School  |             |                |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
| 2.   | Insert 2 records with relevant information, in the school table.  | 1           |                |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
| 3.   | Display all the records of the school table   | 1           |                |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
| 4.   | Delete the student whose Roll_No is 50  | 1           |                |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
| 5.   | Change the Stream of all the student from Science to Commerce.  | 1           |                |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
| 6.   | Add new column named 'Remark' with data type Varchar & Size 20 in school table  | 1           |                |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |
| 7.   | View structure of school table  | 1           |                |      |            |         |        |   |             |      |         |    |          |         |        |   |                |        |         |    |  |       |         |   |  |  |

| 8.  | Drop the table school  | 1         |            |             |            |             |         |        |   |        |    |     |          |     |   |   |         |    |            |          |     |   |   |      |    |          |          |     |   |   |      |    |     |          |     |   |   |         |    |            |          |     |   |   |       |    |         |          |     |   |  |
|-----|--|-----------|------------|-------------|------------|-------------|---------|--------|---|--------|----|-----|----------|-----|---|---|---------|----|------------|----------|-----|---|---|------|----|----------|----------|-----|---|---|------|----|-----|----------|-----|---|---|---------|----|------------|----------|-----|---|---|-------|----|---------|----------|-----|---|--|
| 9.  | Make all the changes permanently   | 1         |            |             |            |             |         |        |   |        |    |     |          |     |   |   |         |    |            |          |     |   |   |      |    |          |          |     |   |   |      |    |     |          |     |   |   |         |    |            |          |     |   |   |       |    |         |          |     |   |  |
| VII | <b>Answer the following questions based on the table given below:</b>  | <b>10</b> |            |             |            |             |         |        |   |        |    |     |          |     |   |   |         |    |            |          |     |   |   |      |    |          |          |     |   |   |      |    |     |          |     |   |   |         |    |            |          |     |   |   |       |    |         |          |     |   |  |
|     | <table border="1"> <thead> <tr> <th>No</th> <th>Name</th> <th>Age</th> <th>Department</th> <th>Date of Adm</th> <th>Charges</th> <th>Gender</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Mahesh</td> <td>23</td> <td>ENT</td> <td>12/12/07</td> <td>300</td> <td>M</td> </tr> <tr> <td>2</td> <td>Zareena</td> <td>30</td> <td>Cardiology</td> <td>12/01/02</td> <td>250</td> <td>F</td> </tr> <tr> <td>3</td> <td>Kush</td> <td>25</td> <td>Medicine</td> <td>21/11/05</td> <td>800</td> <td>M</td> </tr> <tr> <td>4</td> <td>Arun</td> <td>33</td> <td>ENT</td> <td>22/08/01</td> <td>200</td> <td>M</td> </tr> <tr> <td>5</td> <td>Sheetal</td> <td>30</td> <td>Gynecology</td> <td>11/11/00</td> <td>300</td> <td>F</td> </tr> <tr> <td>6</td> <td>Meena</td> <td>32</td> <td>Surgery</td> <td>23/04/98</td> <td>400</td> <td>F</td> </tr> </tbody> </table> <p style="text-align: center;">Table: Hospital</p> | No        | Name       | Age         | Department | Date of Adm | Charges | Gender | 1 | Mahesh | 23 | ENT | 12/12/07 | 300 | M | 2 | Zareena | 30 | Cardiology | 12/01/02 | 250 | F | 3 | Kush | 25 | Medicine | 21/11/05 | 800 | M | 4 | Arun | 33 | ENT | 22/08/01 | 200 | M | 5 | Sheetal | 30 | Gynecology | 11/11/00 | 300 | F | 6 | Meena | 32 | Surgery | 23/04/98 | 400 | F |  |
| No  | Name   | Age       | Department | Date of Adm | Charges    | Gender      |         |        |   |        |    |     |          |     |   |   |         |    |            |          |     |   |   |      |    |          |          |     |   |   |      |    |     |          |     |   |   |         |    |            |          |     |   |   |       |    |         |          |     |   |  |
| 1   | Mahesh   | 23        | ENT        | 12/12/07    | 300        | M           |         |        |   |        |    |     |          |     |   |   |         |    |            |          |     |   |   |      |    |          |          |     |   |   |      |    |     |          |     |   |   |         |    |            |          |     |   |   |       |    |         |          |     |   |  |
| 2   | Zareena  | 30        | Cardiology | 12/01/02    | 250        | F           |         |        |   |        |    |     |          |     |   |   |         |    |            |          |     |   |   |      |    |          |          |     |   |   |      |    |     |          |     |   |   |         |    |            |          |     |   |   |       |    |         |          |     |   |  |
| 3   | Kush   | 25        | Medicine   | 21/11/05    | 800        | M           |         |        |   |        |    |     |          |     |   |   |         |    |            |          |     |   |   |      |    |          |          |     |   |   |      |    |     |          |     |   |   |         |    |            |          |     |   |   |       |    |         |          |     |   |  |
| 4   | Arun   | 33        | ENT        | 22/08/01    | 200        | M           |         |        |   |        |    |     |          |     |   |   |         |    |            |          |     |   |   |      |    |          |          |     |   |   |      |    |     |          |     |   |   |         |    |            |          |     |   |   |       |    |         |          |     |   |  |
| 5   | Sheetal  | 30        | Gynecology | 11/11/00    | 300        | F           |         |        |   |        |    |     |          |     |   |   |         |    |            |          |     |   |   |      |    |          |          |     |   |   |      |    |     |          |     |   |   |         |    |            |          |     |   |   |       |    |         |          |     |   |  |
| 6   | Meena  | 32        | Surgery    | 23/04/98    | 400        | F           |         |        |   |        |    |     |          |     |   |   |         |    |            |          |     |   |   |      |    |          |          |     |   |   |      |    |     |          |     |   |   |         |    |            |          |     |   |   |       |    |         |          |     |   |  |
|     | Write the SQL queries to :   |           |            |             |            |             |         |        |   |        |    |     |          |     |   |   |         |    |            |          |     |   |   |      |    |          |          |     |   |   |      |    |     |          |     |   |   |         |    |            |          |     |   |   |       |    |         |          |     |   |  |
| 1.  | Display names of all the patients whose Date_of_Adm is in between 01/01/00 and 31/12/10.   | 2         |            |             |            |             |         |        |   |        |    |     |          |     |   |   |         |    |            |          |     |   |   |      |    |          |          |     |   |   |      |    |     |          |     |   |   |         |    |            |          |     |   |   |       |    |         |          |     |   |  |
| 2.  | Display names of all the patients who are admitted in ENT Department   | 2         |            |             |            |             |         |        |   |        |    |     |          |     |   |   |         |    |            |          |     |   |   |      |    |          |          |     |   |   |      |    |     |          |     |   |   |         |    |            |          |     |   |   |       |    |         |          |     |   |  |
| 3.  | Display names of all the patients with their Date_of_Adm in ascending order  | 2         |            |             |            |             |         |        |   |        |    |     |          |     |   |   |         |    |            |          |     |   |   |      |    |          |          |     |   |   |      |    |     |          |     |   |   |         |    |            |          |     |   |   |       |    |         |          |     |   |  |
| 4.  | Display details of all the Female patients   | 2         |            |             |            |             |         |        |   |        |    |     |          |     |   |   |         |    |            |          |     |   |   |      |    |          |          |     |   |   |      |    |     |          |     |   |   |         |    |            |          |     |   |   |       |    |         |          |     |   |  |
| 5.  | Find out the output of following SQL queries:<br>a) SELECT Count(Distinct(Charges)) FROM Hospital;<br>b) SELECT Min(Age) from Hospital WHERE Gender='M';   | 2         |            |             |            |             |         |        |   |        |    |     |          |     |   |   |         |    |            |          |     |   |   |      |    |          |          |     |   |   |      |    |     |          |     |   |   |         |    |            |          |     |   |   |       |    |         |          |     |   |  |

--BEST OF LUCK--