Series : OSR/1

Code No. **90/1**

Roll No.

Candidates must write the Code on
the title page of the answer-book.

- Please check that this question paper contains **8** printed pages.
- Code number given on the right hand side of the question paper should be written on the title page of the answer-book by the candidate.
- Please check that this question paper contains **7** questions.
- **Please write down the Serial Number of the question before attempting it.**
- 15 minutes time has been allotted to read this question paper. The question paper will be distributed at 10.15 a.m. From 10.15 a.m. to 10.30 a.m., the students will read the question paper only and will not write any answer on the answer-book during this period.

# INFORMATICS PRACTICES

*Time allowed : 3 hours ]*                                                              *[ Maximum marks : 70*

**Instructions :**    *(i)    All questions are compulsory.*

  *(ii)   Answer the questions after carefully reading the text.*

1.  (a)  State two advantages of networking computers instead of having standalone computers.                                                                                               1

    (b)  What was the objective behind developing UNICODE ?                                     1

    (c)  Expand the following terms :                                                           1

         (i)   WAN

         (ii)  OSS

    (d)  What is the purpose of switch in a network ?                                           1

    (e)  Identify the following devices :                                                       2

         (i)   An intelligent device that connects several nodes to form a network and redirects the received information only to intended node(s).

         (ii)  A device that regenerates (amplifies) the received signal and re-transmits it to its destination.

(f) What is the name of the network topology in which each node is connected independently using a switch ? 2

(g) What is meant by "Denial of Service" with reference to Internet service ? 2

2. (a) Distinguish between '/' and '%' operators. 1

(b) What is a button group ? Which control is generally used with a button group ? 1

(c) Which property of ListBox is used to display values in the list ? 1

(d) Which tags of HTML are used to 1

    (i) Change the font in a page

    (ii) Add a row in a table ?

(e) What will be the values of variables sum and sum1 after the execution of the following loops ? 2

| Loop A | Loop B |
|---|---|
| int v=6,sum=0;<br>while (v>3)<br>{<br>    sum+=v;<br>    v-=2;<br>} | int w=6,sum1=0;<br>do<br>{<br>    sum1+=w;<br>    w-=2;<br>} while (w>3); |

(f) What will be displayed in jTextArea1 after the execution of the following loop ? 2

```
for (int I=5; I<=25; I+=5)

jTextArea1.setText(jTextArea1.getText()+

" "+Integer.toString(2*I));
```

(g) Explain with the help of example(s) the difference between container and empty elements of HTML. 2

3. (a) Write two examples of DBMS software. 1

(b) What happens when Autocommit is set on ? 1

(c) What is meant by NULL value in MySQL ? 1

(d) Table 'Club' has 4 rows and 3 columns. Table 'Member' has 2 rows and 5 columns. What will be the cardinality of the Cartesian product of them ? 1

(e) A numeric data field CHANGER contains 25565.7765. Write a commands to round off CHANGER **2**

    (i) up to 2 decimal places (i.e., expected result 25565.78)

    (ii) whole number (i.e., expected result 25566)

(f) Name methods used to perform the following in NetBeans : **2**

    (i) To set component visible at run time

    (ii) To return the index value of the selected item from the list

(g) Gopi Krishna is using a table Employee. It has the following columns : **2**

Code, Name, Salary, Deptcode

He wants to display maximum salary departmentwise.

He wrote the following command

SELECT Deptcode,Max(Salary) FROM Employee;

But he did not get the desired result.

Rewrite the above query with necessary changes to help him get the desired output.

4. (a) Define the term 'Inheritance'. **2**

(b) Rewrite the following program code using Switch Case statement : **2**

```
int choice=Integer.parseInt(jTextField1.getText());
if (choice==1)
      jTextField2.setText("January");
else if (choice==2)
      jTextField2.setText("February");
else if (choice==3)
      jTextField2.setText("March");
else if (choice==4)
      jTextField2.setText("April");
else if (choice==5)
      jTextField2.setText("May");
else
      jTextField2.setText("Only 1 to 5 please");
```

(c) What will be the value X1 after the execution of the following code ?    **1**

```
String X1="Graduate",X2="Post";
X1=X2.concat(X1);
```

(d) Write Java statement to make a jTextfield1 uneditable during execution.    **1**

(e) What will be displayed in jTextArea1 after the execution of the following code ?    **2**

```
int Z=4;
do
{
    jTextArea1.setText(Integer.toString(++Z));
    Z=Z+1;
} while (Z<=8);
```

(f) Give the output of the following java code :    **2**

```
String name="Sid Nayar";
int T=name.length(),N;
N=150-T;
jTextField2.setText(Integer.toString(T));
jTextField3.setText(Integer.toString(N));
```

(g) Abraham is a programmer at Shouryen World School. He created the following GUI in Netbeans. The grade is calculated on the basis of percentage of total marks in five subjects (English, Maths, Physics, Chemistry, Computers). The Grade is calculated using the following criterion :

(Each subject marks is out of 100)

| Percentage | Grade |
|------------|-------|
| >=90 | A |
| >=70 & <90 | B |
| >=50 & <70 | C |
| >=33 & <50 | D |
| < 33 | F |

Help him to write code for the following :

(i) Write Java code to calculate and display Total (as sum of marks obtained in all the subjects), Percentage (as Total/5) and Grade on the basis Percentage of marks and the given criteria on the click of Command Buttons [Calculate Total], [Calculate %] and [Calculate Grade] respectively.      **3**

(ii) Write Java code to clear all Textboxes on the click of [Clear] button.      **1**

(iii) Write Java code to close the application on the click of [exit] button.      **1**

5. (a) State difference between date functions NOW( ) and SYSDATE( ) of MySql.      **2**

(b) Name a function of MySql which is used to remove trailing and leading spaces from a string.      **1**

(c) Consider the following table named "SBOP" with details of account holders. Write commands of MySql for (i) to (iv) and output for (v) to (vii). **7**

Table : SBOP

| Accountno | Name | Balance | DateOfopen | Transaction |
|-----------|------------|----------|------------|-------------|
| SB-1 | Mr.Anil | 15000.00 | 2011-02-24 | 7 |
| SB-2 | Mr.Amit | 23567.89 | | 8 |
| SB-3 | Mrs.Sakshi | 45000.00 | 2012-02-04 | 5 |
| SB-4 | Mr.Gopal | 23812.35 | 2013-09-22 | |
| SB-5 | Mr.Dennis | 63459.80 | 2009-11-10 | 15 |

(i) To display Accountno, Name and DateOfopen of account holders having transactions more than 8.

(ii) To display all information of account holders whose transaction value is not mentioned.

(iii) To add another column Address with datatype and size as VARCHAR(25).

(iv) To display the month day with reference to DateOfopen for all the account holders.

(v) SELECT Count(*) FROM SBOP;

(vi) SELECT Name, Balance FROM SBOP

   WHERE Name LIKE "%i";

(vii) SELECT ROUND(Balance,-3) FROM SBOP

   WHERE Accountno="SB-5";

6. (a) Write MySql command to create the table SHOP with given structure and constraint : **2**

Table: SHOP

| Column_Name | DataType(Size) | Constraint |
|---|---|---|
| Fno | Int(10) | Primary Key |
| Fname | Varchar(15) | |
| Type | Char(10) | |
| Stock | Int(3) | |
| Price | Decimal(8, 2) | |

(b) In a Database Multiplexes, there are two tables with the following data. Write MySQL queries for (i) to (iii), which are based on **TicketDetails** and **AgentDetails** :

Table : TicketDetails

| Tcode | Name | Tickets | A_code |
|---|---|---|---|
| S001 | Meena | 7 | A01 |
| S002 | Vani | 5 | A02 |
| S003 | Meena | 9 | A01 |
| S004 | Karish | 2 | A03 |
| S005 | Suraj | 1 | A02 |

Table : AgentDetails

| Acode | AName |
|---|---|
| A01 | Mr.Robin |
| A02 | Mr.Ayush |
| A03 | Mr.Trilok |
| A04 | Mr.John |

(i) To display Tcode, Name and Aname of all the records where the number of tickets sold is more than 5. **2**

(ii) To display total number of tickets booked by agent "Mr. Ayush". **2**

(iii) To display Acode, Aname and corresponding Tcode where Aname ends with "k". **2**

(c) With reference to 'TicketDetails' table, which column is the primary key ? Which column is the foreign key ? Give reason(s). **2**

7. (a) Define e-learning. Give one popularly used website of e-learning.　　1

(b) "Use of e-governance has its social and economic impacts." Justify.　　2

(c) Steeve Antony works for HM Academy. He wants to create controls on a form for the following operations. Choose appropriate controls from Text box, Label, Radio Button, List box, Combo box, Check box and Command button.　　2

| S.No | Operation |
|------|-----------|
| 1. | Enter Name of Employee |
| 2. | Select Department from a list of department names |
| 3. | Gender out of options M and F |
| 4. | Submit form |

---