

**Series SMA****Code No. 90**

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

Roll No.

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- 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***Note :**

- (i) **All** questions are compulsory.
- (ii) Answer the questions after carefully reading the text.

1. (a) Raj Kamal International School is planning to connect all computers, each spread over distance within 45 meters. Suggest an economical cable type having high-speed data transfer, which can be used to connect these computers. 1
- (b) Name two Indian Scripts included in UNICODE. 1
- (c) Write examples of one Proprietary and one Open Source Software. 1

- (d) Name any two most popularly used internet browsers.
- (e) Ms. Rani Sen, General Manager of Global Nations Corporate recently discovered that the communication between her company's accounts office and HR office is extremely slow and signals drop quite frequently. These offices are 125 metres away from each other and connected by an ethernet cable. 2
- (i) Suggest her a device, which can be installed in between the offices for smooth communication.
- (ii) What type of network is formed by having this kind of connectivity out of LAN, MAN and WAN ?
- (f) Give an advantage of using Star topology over Bus topology. Show a network layout of Star topology to connect 5 computers. 2
- (g) Give suitable example of URL and Domain name. 2
2. (a) While making a Form in Netbeans, Mr. Harihar Jha wants to display a list of countries to allow the users to select their own country. Suggest him to choose most appropriate control out of ListBox and ComboBox. 1
- (b) What is the purpose of break keyword while using Switch Case Statement ? Illustrate with the help of an example. 1
- (c) Write the name of HTML tag used to include numbered list in a HTML Web Page. 1
- (d) Write HTML code for the following : 1
- To provide hyperlink to a website "http://www.cbse.nic.in"
- (e) What will be the content of the JTextArea1 after executing the following code (Assuming that the JTextArea1 had no content before executing this code) ?
- ```
for (int C=1; C=4; C++)
{
    JTextArea1. setText(
        JTextArea1.getText() + " " +
        Integer.toString(C*C));
}
```
- 2

- (f) Which of the following units measures the speed with which data can be transmitted from one node to another node of a network ? Also give the expansion of the suggested unit. 2
- (i) KMph
- (ii) KMpl
- (iii) Mbps
- (g) Write Java code that takes value for a number (n) in jTextField1 and cube (n\*n\*n) of it to be displayed in jTextField2. 2
3. (a) Write MySql command to open an existing database. 1
- (b) Ms. Mirana wants to remove the entire content of a table "BACKUP" alongwith its structure to release the storage space. What MySql statement should she use ? 1
- (c) Give one difference between ROLLBACK and COMMIT commands used in MySql. 1
- (d) A table STUDENT has 4 rows and 2 columns and another table TEACHER has 3 rows and 4 columns. How many rows and columns will be there if we obtain the Cartesian product of these two tables ? 1
- (e) Mr. Sanghi created two tables with CITY as Primary Key in Table1 and Foreign Key in Table2. While inserting a row in Table2, Mr. Sanghi is not able to enter a value in the column CITY. What could be the possible reason for it ? 2
- (f) Item code consisting of 5 digits is stored in an integer type variable intItemCode. Mr. Srikanth wants to store this Item code in a String type variable called strItemCode. 2
- Write appropriate Java statement(s) to help her in performing the same.
- (g) Mr. Janak is using a table with following columns : 2
- Name, Class, Course\_Id, Course\_name
- He needs to display names of students, who have not been assigned any stream or have been assigned Course\_name that ends with "economics".

He wrote the following command, which did not give the desired result.

```
SELECT Name, Class FROM Students
WHERE Course_name=NULL OR Course_name="%economics";
```

Help Mr. Janak to run the query by removing the error and write the correct query.

4. (a) What message will be displayed after the execution of the following code ? 2

```
int Age=64,Relaxation=4;
int ModiAge=Age-Relaxation;
if (ModiAge<60)
    JOptionPane.showMessageDialog(Null, "NOT eligible");
else
    JOptionPane.showMessageDialog(Null, "Eligible");
```

- (b) Rewrite the following program code using a If statement :

```
int C=jComboBox1.getSelectedIndex();
switch(C)
{
    case 0 : Amount=Bill;break;
    case 1 : Amount=0.9*Bill;break;
    case 2 : Amount=0.8*Bill;break;
    default : Amount=Bill;
}
```

2

- (c) How many times does the following while loop get executed ? 1

```
int K=5;
int L=36;
while (K<=L)
{
    K+=6;
}
```

- (d) What will be displayed in JTextArea1 after executing the following statement ?

```
JTextArea1.setText("GREAT\nCOUNTRY\tINDIA");
```

1

- (e) What will be the values of variables 'm' and 'n' after the execution of the following code ?

2

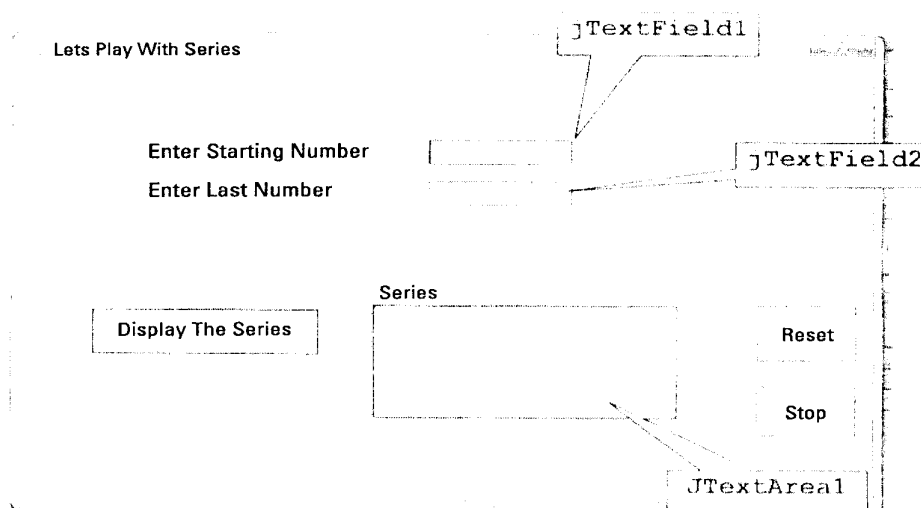
```
int P,Q=0;
for (P=1;P<=4;P++)
{
    Q+=P;
    Q--;
}
```

- (f) Given a string object named **Pay** having value as "68000" stored in it. Obtain the output of the following :

2

```
JOptionPane.showMessageDialog(null,
" "+Salary.length()+Integer.parseInt(Salary));
```

- (g) Janav Raj is a programmer at Path Educo Enterprises. He created the following GUI in NetBeans. Help him to write code for the following :



- (i) To display series of odd or even numbers (depending on Starting Number – jTextField1 is even or odd) in the jTextArea on the click of command button [Display The Series].

2

For example :

If the Start Number is 5 and Last Number is 11

Text Area Content will be

5 7 9 11

If the Start Number is 2 and Last Number is 10  
Text Area Content will be

2 4 6 8 10

- (ii) To clear both the text fields and text area, on clicking [Reset] button. 2
- (iii) To terminate the application on the click of [Stop] button. (Assume Suitable names for the various controls on the Form) 1
5. (a) What is the purpose of ORDER BY clause in MySql ? How is it different from GROUP BY clause ? 2
- (b) Table SCHOOL has 4 rows and 5 columns. What is the Cardinality and Degree of this table ? 1
- (c) Consider the Table SHOPPE given below. Write command in MySql for (i) to (iv) and output for (v) to (vii).

Table **SHOPPE** :

| Code | Item      | Company     | Qty | City    | Price |
|------|-----------|-------------|-----|---------|-------|
| 102  | Biscuit   | Hide & Seek | 100 | Delhi   | 10.00 |
| 103  | Jam       | Kissan      | 110 | Kolkata | 25.00 |
| 101  | Coffee    | Nestle      | 200 | Kolkata | 55.00 |
| 106  | Sauce     | Maggi       | 56  | Mumbai  | 55.00 |
| 107  | Cake      | Britannia   | 72  | Delhi   | 10.00 |
| 104  | Maggi     | Nestle      | 150 | Mumbai  | 10.00 |
| 105  | Chocolate | Cadbury     | 170 | Delhi   | 25.00 |

- (i) To display names of the items whose name starts with 'C' in ascending order of Price. 1
- (ii) To display Code, Item name and City of the products whose quantity is less than 100. 1
- (iii) To count distinct Company from the table. 1
- (iv) To insert a new row in the table Shoppe  
'110', 'Pizza', 'Papa Jones', 120, "Kolkata", 50.0 1
- (v) Select Item from Shoppe where Item  
IN("Jam", "Coffee"); 1

- (vi) Select Count(distinct(City)) from Shoppe; 1
- (vii) Select MIN(Qty) from Shoppe where City="Mumbai"; 1

6. (a) Write MySql command to create the Table STOCK including its Constraints. 2

Table **STOCK** :

| Name of Column | Type    | Size | Constraint  |
|----------------|---------|------|-------------|
| Id             | Decimal | 4    | Primary Key |
| Name           | Varchar | 20   |             |
| Company        | Varchar | 20   |             |
| Price          | Decimal | 8    | Not Null    |

- (b) In a Database there are two tables :

Table **ITEM** :

| ICode | Iname           | Price |
|-------|-----------------|-------|
| 101   | Television      | 75000 |
| 202   | Computer        | 42000 |
| 303   | Refrigerator    | 90000 |
| 404   | Washing Machine | 27000 |

Table **BRAND** :

| ICode | Brand |
|-------|-------|
| 101   | Sony  |
| 202   | HP    |
| 303   | LG    |
| 404   | IFB   |

Write MySql queries for the following :

- (i) To display ICode, IName and corresponding Brand of those Items, whose Price is between 20000 and 45000 (both values inclusive). 2
- (ii) To display ICode, Price and BName, of the item which has IName as "Television". 2
- (iii) To increase the price of all the Items by 15%. 2

(c) Given below is a Table Patient.

| Name         | P_No  | Date_Admn  | Doc_No |
|--------------|-------|------------|--------|
| Vimla Jain   | P0001 | 2011-10-11 | D201   |
| Ishita Kohli | P0012 | 2011-10-11 | D506   |
| Vijay Verma  | P1002 | 2011-10-17 | D201   |
| Vijay Verma  | P1567 | 2011-11-22 | D233   |

- (i) Identify Primary key in the table given above. 1
- (ii) Write MySql query to add a column Department with data type varchar and size 30 in the table Patient. 1

7. (a) What social impact does e-Governance have on society ? 1
- (b) Write two important features of e-Business. Give two most commonly used e-Business sites. 2
- (c) Mr. Anurag Das working as Manager in Vivian Enterprises wants to create a form in NetBeans to take various inputs from user. Choose appropriate controls from Label, TextBox, Radio Button, CheckBox, ListBox, ComboBox & Command Button and write them in the third column : 2

| SNo | Control used to                                             | Control |
|-----|-------------------------------------------------------------|---------|
| 1.  | Enter Name, Address and Salary                              |         |
| 2.  | Select Gender (Male/Female)                                 |         |
| 3.  | Select Department from available List                       |         |
| 4.  | Choose Hobby of Employee (Singing/Dancing/Skating/Swimming) |         |