

CLASS XII

SAMPLE PAPER

INFORMATICS PRACTICES

Time Allowed: 3 Hours

Maximum Marks:70

General Instruction-

This Question paper is divided into 3 sections.

1. Section-A consists 30 Marks.
2. Section-B and Section-C are of 20 marks each.
3. Answer the questions after carefully reading the text.

SECTION-A

1. (a) Which protocol is used for transferring the files to and from a remote host? 1
(b) What does the last three byte of MAC address indicate? 1
(c) By which other name the Ring topology is called? 1
(d) Define snooping. 1
(e) What do you mean by topology? Write the names of two types of topologies. 2
(f) Define the following: Bridge and a Router. 2
(g) Define the followings: 2
(i) GNU (ii) Open Office
2. (a) Ms Seema has developed a java application to get computerized result of the students of her School. She enters the marks in the TextFields and corresponding percentage is calculated. But she forgets to write the command for conversion from string to Decimal format. Write the command. 1
(b) What is the main differences between a whileloop and a do ... while loop? Explain with examples. 2
(c) Which Statement of a combo box is used to store the selected option from the list. 1
(d) What is the function of root element in XML. 1
(e) What does the System. exit(0) does when it is attached with a jButton control? 1
(f) Write a function in java that accepts two numbers as parameters and return their

- product. 2
- (g) Name any four control types supported by HTML forms. 2
3. (a) MySQL runs on which Operating Systems. 1
- (b) A table 'Emp' has one of its column named salary. Give the command in MySQL to increase the salary of all the employees by 5%. 1
- (c) What are multiple row functions? 1
- (d) What will be the output of following code? 1
- Select ucase("Redundancy");
- (e) What is Sql? Write down its different categories also? 2
- (f) The Pincode column of table 'Post' is given below- 2

Pincode
110001
120012
300048
281001

- (i) Select pincode from post where pincode like '%1';
- (ii) Select pincode from post where pincode like '_0%';
- (g) A table "Animal" in a database has 3 columns and 10 records. What is the degree and cardinality of this table? 2

SECTION-B

4. (a) Define Inheritance with reference to object oriented programming. 1
- (b) What will be content of jTextField1 after executing the following code. 1
- ```
int num=10;
num=num-2;
if(num>8)
jtextfield1.setText(integer.toString(num+10));
else
jtextfield1.setText(integer.toString(num-10));
```
- (c) What will be contents of jTextField1 after executing the following statement. 1
- ```
jTextArea1.setText("Object\nOriented\tProgramming");
```
- (d) Rewrite the following program code using switch statement. 2
- ```
If(d==1)
Day="Monday";
Else if(d==2)
Day="Tuesday";
```

```
Else if(d==3)
Day="Wednesday";
Else
Day="-";
```

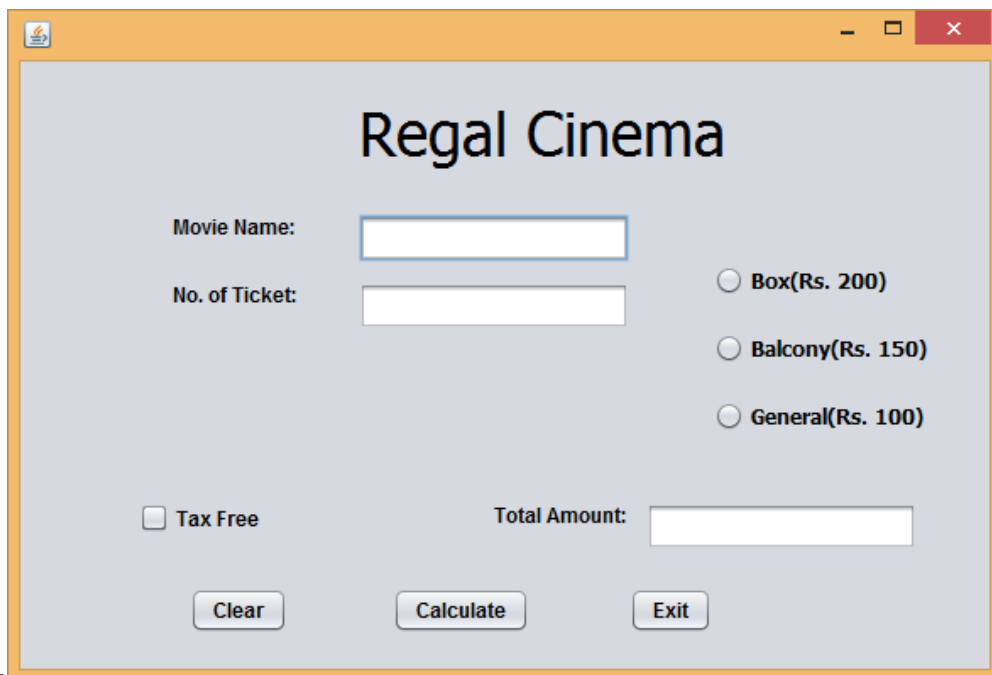
(e) The following code has some error(s). Rewrite the correct code underlining all the corrections made. 2

```
int i=2; j=5;
while j>i
{
jtextfield1.getText("j is greater");
j--;
++i;
}
JOptionPane.showMessageDialog("Hello");
```

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

```
String s="ROHIT PUBLICATIONS";
jTextField1.setText(s.length()+" ");
jTextField2.setText(s.toLowerCase());
```

(g) Regal Theater has computerized its ticketing system. The programmer has developed a GUI application in Netbeans as shown below:



At ticket counter, three types of tickets(Box,Balcony and General) at the rate of 200,150 and 100 respectively are available, It the movie is Tax Free, then the total amount should be deducted by Rs 25 per ticket.

- (i) What should be done so that only one of the radio button(Box,Balcony and General) can be selected at a time. 1
- (ii) Write code to do the followings:
- (a) Calculate and display the Total amount in the corresponding text field when calculate button is pressed. 3
- (b) Clear all the text fields. 1
- (c) Close the application when Exit button is clicked. 1
5. (a) What is constraint? Name any two constraints in MySql? 2
- (b) Write the output of the following SQL queries: 2
- Select Round(7.8975,2);
  - Select Trauncate(7.898,1);
  - Select dayofmonth("2009-08-25");
  - Select Mid("Informatics Practices",2,3);
- (a) Consider the table TEACHER given below. Write commands in SQL for(i) to (iv) and output for (v) to (vii)

## Teacher

| ID | Name           | Department | Hiredate   | Category | Gender | Salary |
|----|----------------|------------|------------|----------|--------|--------|
| 1  | Tanya Nanda    | SSt        | 1994-03-17 | PGT      | F      | 25000  |
| 2  | Saurabh Sharma | Art        | 1990-02-12 | PRT      | M      | 20000  |
| 3  | Nandita Arora  | English    | 1980-05-16 | PGT      | F      | 30000  |
| 4  | James jacob    | English    | 1989-10-16 | TGT      | M      | 25000  |
| 5  | Jaspreet Kaur  | Hindi      | 1990-08-01 | PRT      | F      | 22000  |
| 6  | Disha Sehgal   | Maths      | 1980-03-17 | PRT      | F      | 21000  |

|   |                  |         |            |     |   |       |
|---|------------------|---------|------------|-----|---|-------|
| 7 | Siddarth Kapoor  | Science | 1994-09-02 | TGT | M | 27000 |
| 8 | Sonali Mukherjee | Maths   | 1980-11-17 | TGT | F | 24500 |

- (i) To display all information about teachers of PGT category. 1
- (ii) To list the names of female teachers of Hindi department. 1
- (iii) To list names, departments and date of hiring of all the teachers in ascending order of date of joining. 1
- (iv) To count the number of teachers in English department. 1
- (v) Select Max(hiredate) from teacher. 0.5
- (vi) Select Distinct(category) from teacher. 0.5
- (vii) Select count(\*) from teacher where category="PGT" 0.5
- (viii) Select AVG(salary) from teacher group by gender 0.5

### SECTION-C

6. (a) Write an SQL query to create the table "Menu" with following structure: 2

| Field    | Type         | Constraint  |
|----------|--------------|-------------|
| ItemCode | Varchar(5)   | Primary Key |
| ItemName | Varchar(20)  |             |
| Category | Varchar(20)  |             |
| Price    | Decimal(5,2) |             |

- (b) In a database there are two tables 'Customer' and 'Bill' as shown below:

#### Customer

| Customer ID | Customer Name   | Cust Address         | Cust Phone |
|-------------|-----------------|----------------------|------------|
| 1           | Akhilesh Narang | C4,Janak Puri,Delhi  | 9811078987 |
| 2           | Purnima William | B1,Ashok Vihar,Delhi | 9811078988 |
| 3           | Sumedha Madan   | 33,South Ext.,Delhi  | 9811078989 |

#### Bill

| Bill No. | Cust Id | Bill Amt |
|----------|---------|----------|
| 1        | 2       | 12000    |
| 2        | 1       | 15000    |
| 3        | 2       | 13000    |

|          |          |              |
|----------|----------|--------------|
| <b>4</b> | <b>3</b> | <b>13000</b> |
| <b>5</b> | <b>2</b> | <b>14000</b> |

(i) How many rows and how many column will be there in the Certisian product of these two tables? 1

(ii) Which Column in the 'Bill' tables is the foreign key? 1

(c) Consider the tables Handset and Customer given below:

Handset

| Set Code | Set Name   | Touch Screen | Phone Cost |
|----------|------------|--------------|------------|
| N1       | Nokia 2G   | N            | 5000       |
| N2       | Nokia 3G   | Y            | 8000       |
| B1       | BlackBerry | N            | 14000      |

Customer

| Cust No | Set No | Cust Address |
|---------|--------|--------------|
| 1       | N2     | Delhi        |
| 2       | B1     | Mumbai       |
| 3       | N2     | Mumbai       |
| 4       | N1     | Kolkatta     |
| 5       | B1     | Delhi        |

With reference to these tables, Write commands in SQL for (i) and (ii) and output for (iii) below:

- (i) Display the cust no, cust address and corresponding set name for each customer. 2
- (ii) Display the customer Details for each customer who uses a Nokia handset. 2
- (iii) Select set no,set name from handsets, customer where set no=set code and cust address='Delhi'; 2

7. (a) How does e-business improve customer satisfaction-

Write one point. 1

(b) How has our society benefited from e-governance ?Write 2 points 2

(c) Vijayan works for the Customer Department. He wishes to create controls on a from for the following functions. Choose appropriate controls from

Text Box, Label, Option Button, Check box, List Box, Combo Box, Command button and write in the third column.

2

| S.No. | Control Used to                   | Control |
|-------|-----------------------------------|---------|
| 1     | Enter Last Name                   |         |
| 2     | Enter Gender                      |         |
| 3     | Choose City from a list of cities |         |
| 4     | Submit Form                       |         |