

CLASS XII

SAMPLE PAPER

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) When any legitimate users is prevented from accessing or using the resources, information, or capabilities of the system, then this situation is known as what ? (1)
 - (b) Mr. Rudra Pratap is using a Free Software. What are the freedoms that he can get while using it ? (1)
 - (c) Answer the questions for the situation given below : (2)
 - (i) The two offices which are situated at 125 meters away from each other and are connected by Ethernet cable. But the communication between the two offices is slow and signals drop quit frequently. Which device can be installed in between the two offices for smooth communication?
 - (ii) Mention the name of the network formed by having this kind of connectivity out of LAN, MAN and WAN.
 - (d) Write down the name of two suitable wireless options that can be used for he may use for transferring songs from one mobile to other mobile in a room. (1)
 - (e) In how many different ways can you type Indian Script on a computer ? Name Them. (2)
 - (f) Name two Open Standards and two Proprietary Standards. (2)
 - (g) What is the full form of the followings ? (1)
 - i) ODF
 - ii) HTTP
2. (a) Name the method used to retrieve the password from a Password Field. (1)
 - (b) Name one overloaded operator available in Java. (1)
 - (c) What will be the output of the following HTML code ? (2)

```
<UL type= circle>
  <LI> Indian Players :
```

```
<OL>
<LI> Kohli
<LI> Rahane
<LI> Raina </OL>
```

```
</UL>
```

- (d) What is the significance of **lineWrap** property of a TextArea ? Mention its default value. (1)
- (e) What will be the output of the following statement if 21 is entered in the jTextField1? (1)
`jTextField2.setText(Integer.toString(7 * Integer.parseInt(jTextField1.getText())));`
- (f) What's wrong with the following statements ? (2)
(i) `JOptionPane.showMessageDialog("this", "The AGCS", "PURULIA",2);`
(ii) `int a=jTextArea1.isEditable();`
- (g) Answer the following questions : (2)
(i) Name at least two Markup Languages based on XML.
(ii) Write down the name of one attribute for each of the following tags :
(1) `` (2) `<TEXTAREA>`
3. (a) What happens when you : (2)
(i) Execute START TRANSACTION statement without committing the current transaction.
(ii) Execute any DDL command in the middle of the current transaction.
- (b) Write a MySQL statement to change the size of the **Bname** column to 30 from 20. The **Bname** column is present in the **BANK** table. (1)
- (c) Name the keyword used to : (2)
(i) Force every values in a column to be unique.
(ii) Not allow a NULL value to a column.
- (d) Give the output of the following commands : (2)
(i) `Select INSTR("THE ASSEMBLY OF GOD CHURCH SCHOOL" , "GO");`
(ii) `Select CONCAT("TINT", SUBSTR("INDIA" , -5, 2));`
- (e) What do you mean by a View in MySQL ? (1)
- (f) What are the differences between DELETE and DROP commands of MySQL ? (1)
- (g) What does a Primary Key do in MySQL ? (1)
4. (a) Answer the following questions : (2)
(i) Write the equivalent Java expression for the following mathematical expression :

$$S=ut + 1/2 ft^2$$

(ii) Write a Java statement to declare a constant named **pi** of double type containing a value 3.14.

(b) Mr. Goutam Tiwari has created a String object named **Price** having value as "601100" stored in it. (1)

Obtain the output of the following :

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

(c) Rewrite the following code segment by using for loop, without changing the output : (2)

```
int x=4,y=1;
while (x>0)
{
    x=x-1;
    y=y*x;
    System.out.println(--y);
}
```

(d) How many times will the following loop execute? Is it an Entry Controlled Loop or an Exit Controlled Loop ? (2)

```
int x=21,y=10;
while (x>=y)
{
    y=y+1;
    x=x-2; }
}
```

(e) Find out the error(s), if any, in the following code fragment and rewrite the corrected code by underlining the corrections made : (2)

```
int m=5, n;
N=1;
while m>0
{
    m=m-1,
    n==n*m;
    system.out.println(n);
}
```

(f) What will be the output of the following code segment ? (1)

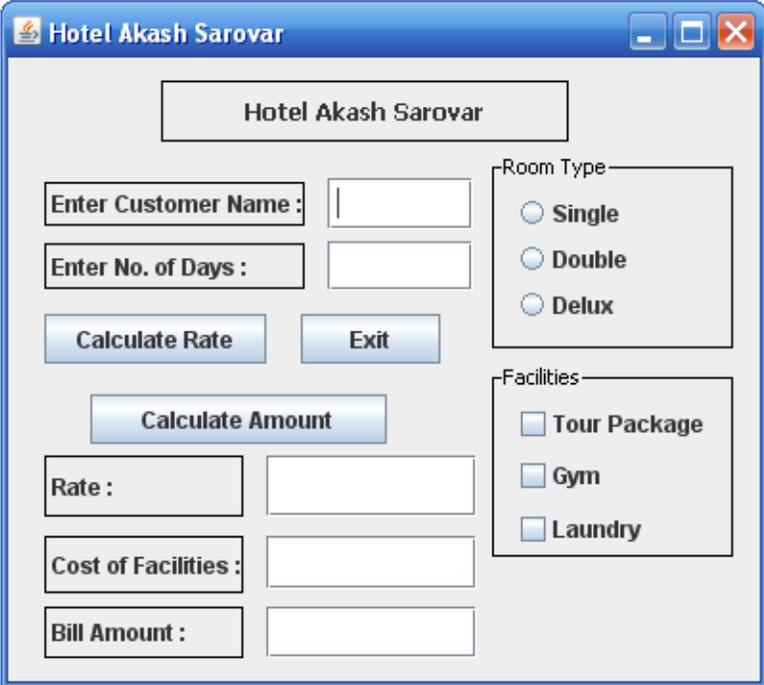
```
String firstName = "Virat";
String lastName = "Kohli";
String fullName = firstName + lastName;
```

```
jTextField1.setText("Full Name: ");
```

```
jTextField2.setText (fullName);
```

(g) Read the following case study and answer the questions that follow :

Hotel Akash Sarovar in **Purulia** district plans to go for computerization in order to meet the work load of the hotel. There are three types of rooms available in **Hotel Akash Sarovar**. The following data entry screen is used to generate the bill for the customers :



The list of controls for the above form is :

Control Type	Control Name	Description
JTextField	NameTF	To enter the customer's name
	DaysTF	To enter the no. of days of stay
	RateTF	To display the rate of selected room
	FacilityTF	To display cost of selected facility
	AmountTF	To display the total bill amount

JRadioButton	SingleRB DoubleRB DeluxRB	To select single type room To select double type room To select deluxe type room
JCheckBox	PacCB GymCB LanCB	To select tour package facility To select gym facility To select laundry facility
JButton	RateBTN BillBTN ExitBTN	To calculate rate of the selected room To calculate the bill amount To close the application

- (a) Write the code for Calculate Rate button to calculate and display the rate of the selected room per day as per the following arrangement : (2)

Room Type	Rate per day
Single	Rs. 1500
Double	Rs. 2500
Delux	Rs. 4500

- (b) Write the code for Exit button to exit from the application. (1)
- (c) Write the code for Calculate Amount button to calculate and display the total bill amount in the AmountTF textfield. The total bill amount is calculated by first finding the cost of facilities selected by the customer. Cost of facilities is calculated according to the given scheme. In case the bill amount exceeds Rs. 50,000 than the hotel gives a discount of 5% on total bill amount. (2)

Facility	Cost
Tour Package	Rs. 10,000
Gym	Rs. 2,000
Laundry	Rs. 1,000

5. (a) What is the difference between Single Row Functions and Multiple Row Functions? Give one example of each category. (2)
- (b) Define UNION in MySQL. (1)
- (c) Write MySQL commands for (i) to (v) and write the outputs for (vi) on the basis of table **FAMILY** given below :-

TABLE : FAMILY

No	Name	Females	Males	Income	Occupation
1	Mishra	3	2	7000	Service
2	Gupta	4	1	50000	Business
3	Khan	6	3	8000	Mixed
4	Chaddha	2	2	25000	Business
5	Yadav	7	2	20000	Mixed
6	Joshi	3	2	14000	Service
7	Mourya	6	3	5000	Farming
8	Rao	5	2	10000	Service

- (i) To show all information of family whose occupation is service. (1)
- (ii) To list the name of family where female members are more than 3. (1)
- (iii) To show all names of family with income in ascending order. (1)
- (iv) To display family's name, number of male members and income of business family. (1)
- (v) To count the number of families whose income is less than 10,000. (1)
- (vi) Give the output of the following MySQL statements : (2)
- (1) SELECT CONCAT('Mr.' , Name) FROM FAMILY WHERE Males>2;
 - (2) SELECT MIN(Females) FROM FAMILY WHERE Occupation='Mixed';
 - (3) SELECT SUM(Income) FROM FAMILY WHERE Occupation='Service';
 - (4) SELECT AVG(Income) FROM FAMILY WHERE Females>=5;

6. (a) Write MySQL command to create the Table HOUSE including its Constraints. (2)

Table **HOUSE** :

Name of Column	Type	Size	Constraint
HNo	INT	8	Primary Key
HAddress	VARCHAR	20	Not Null
HCity	VARCHAR	10	Not Null
HArea	DECIMAL	8,2	
HDate	DATE		

- (b) Study the following TEACHER and SALARY tables and write the MySQL commands for the questions (i) and (ii) and give output for MySQL query (iii).

Table : TEACHER

TID	NAME	DEPT	SEX	EXPERIENCE
101	V. N. Bhakat	Computer	M	3
104	P. Das	Physics	M	11
107	A. Banerjee	Chemistry	F	6
109	K. Janvi	Physics	F	9
105	M. K. Sao	Accounts	M	12
117	S. Dey	Computer	F	3
111	G. Tiwari	B. St.	M	14

Table : SALARY

TID	BASIC	ALLOWANCE	DA
101	12000	1000	300
104	23000	2300	500
107	32000	4000	500
109	42000	1700	200
105	18900	1690	300

- (i) Display NAME and DA of all staff having more than 10 years of experience and whose DA is more than 300. (2)
- (ii) Display the name and salary of all staff who are working in physics department and getting basic more than 20000. (SALARY=BASIC +ALLOWANCE+ DA). (2)
- (iii) Select NAME, DA, BASIC from TEACHER, SALARY (2)
Where BASIC>20000 and TEACHER.TID=SALARY.TID;
- (c) Answer the following questions : (2)
- (i) There is a column **AGE** in table **STUDENT**. The following two statements are giving output as 21 and 16 respectively. What may be the possible reason ?
SELECT COUNT(*) FROM STUDENT;
SELECT COUNT(AGE) FROM STUDENT;
- (ii) Give the output of the following commands :
SELECT YEAR('2015 - 01 - 05') - 1;
7. (a) Differentiate between Front-end and Back-end. (1)
- (b) What is e-Learning ? Mention one advantage of it. (2)
- (c) Sunidhi wants to create a GUI for her business. Choose appropriate controls from TextField, Label , RadioButton , CheckBox , ListBox , ComboBox , Button and write in the third column of the (2)

table given below :

S.No.	Control used to	Control Name
1	Select item type from few items	
2	To place final order	
3	Enter customer's name	
4	To choose name of the city	

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