

PRACTICE PAPER
CLASS: XII
SUBJECT: INFORMATICS PRACTICES (Code 265)

Time 3 Hrs

MM 70

- *Please check that this question paper contains 5 printed pages.*
- *Please check that this question paper contains 7 questions.*
- *All questions are compulsory.*
- *Please write down the Serial Number of the question before attempting it.*
- *15 minute time has been allowed to read this question paper. The students will read the question paper only and will not write any answer on the answer book during this period.*
- *Answer the questions after carefully reading the text.*

- Q1.(a) Mr. Ramesh is working in the Global Organisation. He wants to login in his office's computer from his home. Suggest the protocol for the same. 1
- (b) Which device is used for connecting multiple networks over different protocols? 1
- (c) Identify the following topologies: 2
- (i) A signal/data packet transmits from one end to other end in linear way.
- (ii) Node failure does not lead to whole network failure.
- (d) Write any two scripts included in Indian Languages on Unicode. 1
- (e) What is the difference between free software and freeware? 1
- (f) Write the name of the most suitable wireless communication channels for each of the following situations: 2
- (i) Communication between two offices in two different countries.
- (ii) To transfer data from one mobile phone to another.
- (g) Expand the terms: FSF and GPL. 1
- (h) What is the significance of cyber law? 1

- Q2 (a) Write java statement to extract selected value from a given combobox named as "jCombo1" and store it in String variable **City**. 1
- (b) What is default access of class members? 1
- (c) Identify the error(s) in HTML code. Also, write the correct code 2
- (i) < body colour="yellow" text="white">
- (ii) <UL type= "A" start= "D">
- (d) Which of the following method(s) does not accept any arguments? 1
- i) pow() ii) toLowerCase() iii) round()
- (e) Amit created a program using **switch case**. He used the data type **char** for selection variable. Is it correct to define selection variable as char? 1
- (f) Find the output: 2
- ```
int i=1;
for(i=1;i<=5;i++)
System.out.println(""+ (i++));
System.out.print(i+ "");
```

**OR**

Write a function definition using java to calculate the area of a circle (3.14\*radius\* radius). Notice that the function should get radius as parameter and return area.

- (g) Convert the following code using **for** looping statement. Also predict the value of variable **f** displayed out. 2

```
int f =1,i=2;
while (++i <5)
f *=i;
System.out.println(f);
```

**OR**

- (g) Write the output from the following two codes. Also Give reason(s) for difference in output.

**First Code:**

```
int x,y;
for(x=2,y=40;x>=y;x=x+8)
```

```
{
 jTextField1.setText(""+x);
}
```

**Second Code :**

```
int x=2,y=40;
do {
 jTextField1.setText(""+x);
 x=x+8;
} while(x>=y);
```

- Q3 (a) Write MySQL command to see constraints applied on column(s) in a table named as **Employee**. 1  
 (b) Rakesh wrongly dropped a table named as **STUDENT**. Can he recover this table? Justify your answer. 2  
 (c) Table **Shop** contains 3 columns(itemcode, itemname, itemprice) and 10 records. Delete all records where itemname is "Bread" or "Milk". 1  
 (d) Giving suitable example explain the concept of Alternate key? 2  
 (e) Table **Employee** contain the columns named with Emp\_no, Emp\_name and Basic: 2

| Emp_No | Emp_Name | Basic |
|--------|----------|-------|
| 6985   | SURESH   | 6700  |
| 5874   | Rahman   | 7500  |
| 6587   | Sourav   | NULL  |
| 5478   | Suresh   | 5500  |

Based on this information given in the table, find output of the following queries.

- i. SELECT AVG(Basic+100) FROM Employee;  
 ii. SELECT Distinct Emp\_Name FROM Employee WHERE Basic IS Not Null;  
 (f) A table "Hospital" in a database has degree 4 and cardinality 9. What is the number of rows and columns in it? 2

- Q4. (a) What is implicit and explicit type conversion? 1  
 (b) A class **Vehicle** and its subclass **Car** both have a method **speed()**. If **Maruti** is an object of class type **Car**, what will happen if following statement is issued? 2  
 Maruti.speed();

**OR**

- (b) What is the purpose of keyword (i) extends and (ii) super in java?  
 (c) What is the use of **forClass()** method in JDBC? 1  
 (d) Mention any two main features of XML for which it's used extensively now a days. 1  
 (e) Differentiate between **executeQuery()** and **executeUpdate()** methods. 1  
 (f) Find the error(s) & output of corrected code for the following java code snippet: 2

```
String word="Highrise";
String wordlc = word.toLowerCase();
for (int i = 0; i < wordlc.length; i+=4);
{
 String extstr = wordlc.substring(i,i+2);
 jTextField1.append(extstr+"\n");
}
}
```

**OR**

- (f) Anju, a beginner in java programming has written following code with some mistakes:

```
int k=0;
String s="Save Earth";
int l=s.length;
for(int i=0;k<l;i++)
{ jTextField1.append(s+ "\n");
k++;
};
```

Help her in identifying and correcting the errors. Also write the output of corrected code.

- (g) Given an int variable **K** with value 275. It is to be converted into equivalent string i.e. "357". What are the two ways of doing that? 1

- (h) K.K.Group of hotels has computerized its booking system. The following is the Booking Form along with details: (you may assume default names in sequence or suitable name for controls). (3+2+1=6)

Write Java code for the following:

- (i) When the command button **Calculate Charges** is clicked all the charges along with discount & total computed and displayed.

**The criterion for the calculation of charges is given below:**

Total = (Room Charges + Food Charges - discount)

Rates for various services are as follows:

Single Room rent: Rs.400 per day, Double Room rent: Rs.700 per day

Breakfast: Rs.100 per day, Lunch: Rs.180 per day, Dinner: Rs.200 per Day

Gold card member will be given 20% discount on (Room Charges + Food Charges)

- (ii) When **CLEAR** button is clicked, all text fields and checkbox should be cleared  
 (iii) When **EXIT** button is clicked, the application should close.

Q5 (a) Write the SQL Query for (i) to (vi) on the basis of table BANK given below: (1X6=6)

**BANK**

| Ac_No | Cust_Name     | B_Name | Amount | Date_of_open | No_of_transaction |
|-------|---------------|--------|--------|--------------|-------------------|
| A001  | Agam Shah     | SBI    | 28000  | 2011-06-01   | 5                 |
| A002  | Nishant Patel | HDFC   | 22000  | 2015-07-02   | 7                 |
| A003  | Krunal        | ICICI  | 66000  | 2015-06-04   | 9                 |
| A004  | Twinkle       | HDFC   | 55000  | 2017-01-10   | 6                 |
| A005  | Jinal         | ICICI  | 34000  | 2017-01-15   | 3                 |
| A006  | Aaditya       | SBI    | 90800  | 2015-08-18   | 1                 |
| A007  | Varsha        | AXIS   | 18000  | 2013-09-11   | 2                 |
| A008  | Vishnu        | ICICI  | 97000  | 2015-08-13   | 5                 |
| A009  | Dhruv Raj     | UCO    | 12000  | 2017-12-01   | 7                 |

- (i) To display the name of customer in SBI who opened their account in the year 2017.  
 (ii) To display Ac\_No, Amount, No\_of\_transaction of customers whose bank is SBI or ICICI or UCO.  
 (iii) To display the detail of customer whose name ends with 'l'.  
 (iv) To display the Date\_of\_Open of newest customer.  
 (v) To count the total number of transactions in each bank separately.  
 (vi) Remove the detail of all customers of UCO bank.

- (b) What is the purpose of set Autocommit=0 in MySQL? 1  
 (c) Differentiate between **Rollback** and **Rollback To** commands in MySQL. 1  
 (d) Write the resulting output of the followings: 2

- (i) Select pow(Instr("My\_Database", "\_"),3);
- (ii) Select substr('CL Gupta World School,-12,3);
- (iii) Select round(1523.432,-3);
- (iv) Select mod(truncate(123.6,0),5);

Q6. (a) Write MySQL command to create the table "ACTORS" with the following structure and constraints: 2

| Column Name | Data Type (Size) | Constraint      |
|-------------|------------------|-----------------|
| ACT_ID      | Int(20)          | Primary Key     |
| ACTOR_NAME  | Varchar(20)      | DEFAULT "VIRAT" |
| MOVIE       | Varchar(40)      |                 |
| CHARGES     | Float(9,2)       |                 |
| GENDER      | Char(5)          |                 |

**OR**

(a) Help Ramesh in identifying any one relevant table for database **HOSPITAL**. Also identify two relevant attributes with suitable data types for that table.

(b) Consider the tables given below while attempting the following questions:

**Train**

| TrainId | TName             | Source      | Destination |
|---------|-------------------|-------------|-------------|
| 3402    | Century Express   | New Delhi   | Mumbai      |
| 4023    | Superfast Express | Kanyakumari | Chandigarh  |
| 3424    | Lucknow Mail      | Lucknow     | New Delhi   |
| 6542    | Capital Express   | Chennai     | Kolkata     |
| 9876    | Punjab Mail       | Patna       | Ludhiana    |
| 5400    | Century Express   | New Delhi   | Kanpur      |

**Reservation**

| RefNo | TrainId | Passenger       | JourneyDate |
|-------|---------|-----------------|-------------|
| S001  | 4023    | Shubham Singh   | 2017-07-02  |
| C001  | 6542    | Jishan Mittal   | 2017-06-25  |
| S002  | 4023    | Jessica Raj     | 2017-07-02  |
| P001  | 9876    | Paramjeet Singh | 2017-07-22  |
| S003  | 4023    | Gurjyot Singh   | 2017-07-03  |
| C002  | 6542    | Akash Mukharjee | 2017-06-25  |
| P002  | 9876    | Meera Devi      | 2017-07-22  |
| L001  | 3424    | Ruby Lal        | 2017-06-29  |
| C003  | 5400    | Tapshree        | 2017-07-04  |

(i) Identify the primary key column of Train and Reservation tables respectively. 1

**OR**

(i) Identify the foreign key in table Reservation. Justify your answer also.

(ii) Help Mr. Sajal in identifying the correct statement from the following with reference to UNION clause: 1

a. SELECT TrainId,TName from Train  
UNION  
SELECT TrainId,Passenger from Reservation;

b. SELECT TrainId from Train  
UNION  
SELECT TrainId from Reservation;

(c) With reference to the above given tables, write commands in SQL for (i) and (ii) and output for (iii) below: (2x3=6)

- i. To display the TrainId,Train name along with its passenger name.
- ii. To display Train detail which has no reservation yet.
- iii. SELECT T.\* from Train T, Reservation R where T.TrainId=R.TrainId AND Source LIKE "%Delhi";

Q7 (a) Write down any two benefits of net banking. 1

(b) Write two features of a good interface. 1

(c) How is on line learning beneficial to trainers? Write two points. 1

(d) Shraddha works for a hospital. She wishes to create controls on a form for the following functions. Suggest controls to her. Choose appropriate controls from Text box, Label, Radio button, Check box, List box, Combo box, Command button. 2

| <b>SNo</b> | <b>Control used to :</b>    | <b>Control</b> |
|------------|-----------------------------|----------------|
| 1          | Enter Patient name          |                |
| 2          | Enter Gender (Male/Female)  |                |
| 3          | Enter detailed prescription |                |
| 4          | Reset the form              |                |

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