

CLASS XII

SAMPLE PAPER

INFORMATICS PRACTICES

Total-Marks-70

Time :3Hrs

General Instructions :

- (i) All questions are compulsory.
- (ii) Answer the questions after carefully reading the text.
- (iii) Draw the neat diagram wherever it is required.

- Q1 (a) Write the name of most suitable communication wireless channels for each of the following situations 1
- (i) Communication between two offices in hilly areas.
 - (ii) Transfer data from one mobile phone to another
- (b) Name two encodings used for Indian Language Computing? 1
- (c) (i) Write any one difference between Freeware and Free software? 1
- (ii) Brightlands Girls Sr. Sec. School installed Windows 7 and Open Office for its computer lab 1 computer lab. Which type of software is Windows 7 and Open Office? 1
- (d) Write name of the device used for the following: 1
- (i) A device which segments the network into sub network?
 - (ii) A device which is used to connect two network using different protocol?
- (e) How MAC address is different from IP address? 1
- (f) Mr. Abhishek while working on his computer connected to internet gets a message to install an executable file 'apsc.exe' which is installed by him. But when he restarts his system he finds that multiple copies of the file are created and speed of the computer is also slow. Justify the reason for the same as well as name of threat or attack. 1
- (g) Ms. Rupam a Network administrator wants that no one should access her resources saved on her system. Suggest her the name of hardware or software used for the same. 1
- (h) Identify the type of topology in which failure of one node fails entire network? 1
- (i) Name two common threats associated with Network Security ? 1
- Q2 (a) What will be an output that will be displayed in the message box: 2
- ```
int A = 50, B;
for(B = 5; B<=18; B++)
```

```

{
 A+=B;
}
JOptionPane.showMessageDialog(null, "Value of A and B is "+A+" "+B);

```

### OR

- (a) What will be an output that will be displayed in the message box: 2

```
int A = 50, B=25;
```

```
do
```

```
{
```

```
 A+=B;
```

```
}while(B<=18);
```

```
JOptionPane.showMessageDialog(null, "Value of A and B is "+A+" "+B);
```

- (b) Which tag is used for the following: 1

(i) To create a row in a table in a web page.

(ii) To display horizontal line.

- (c) Rewrite the code using switch....case. 2

```
int x=20, y=30;
```

```
char ch='+';
```

```
if(ch=='+')
```

```
 System.out.println("Result is "+x+y);
```

```
else if(ch=='-')
```

```
 System.out.println("Result is"+x-y);
```

```
else if(ch=='*')
```

```
 System.out.println("Result is "+x*y);
```

```
else if(ch=='/')
```

```
 System.out.println("Result is "+x/y);
```

```
else if(ch=='%')
```

```
 System.out.println("Result is "x%y);
```

```
else
```

```
 System.out.println("invalid operator");
```

(d) What is the difference between HTML and XML? 2

**OR**

(d) Answer the following: 2

(a) What is an use of link, vlink attribute of body tag.

(b) What is the significance of type and start attribute of <OL> tag.

(e) What is wrong with the following line of declaration in xml? 1

<? xml version='1.6' />

(f) Given a string object named salary having value 22500 stored in it obtain the output of the following: 1

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

(g) Write the name of property used for the following: 1

(i) To allow an user to select any one option from multiple option.

(ii) To specify items items for a listbox.

Q3 (a) Write sql command to create a database BLS if it does not exist in MySQL. 1

(b) How Primary Key is different from Unique Key? 1

(c) Mr. Rath, a database administrator in “Aakash Sports Institute” Has created the following table named “GYM” for the upcoming training schedule: 4

**Table: GYM**

| ICODE | INAME               | PRICE | BRANDNAME      |
|-------|---------------------|-------|----------------|
| G101  | Power Fit Exerciser | 20000 | Power Gynea    |
| G102  | Aquafit Hand Grip   | 18000 | Reliable       |
| G103  | Cycle Bike          | Null  | Ecobike        |
| G104  | Protoner Extrem Gym | 30000 | Coscore        |
| G105  | Message Belt        | 5000  | Message Expert |
| G106  | Crosstrainer        | 13000 | GTC Fitness    |

Help him in writing SQL query/command for the following purpose:

i. To add a column duration with suitable data type.

ii. To display list of free Gym.

iii. To change the brandname to “Fit Trend India” of the item whose icode as “G104”.

iv. To count and display the different BrandName.

- (d) Aanchal wants to replace all NULLS in the column COMM of the table EMPL with 100. Help her by writing the sql command. 1
- (e) What is the significance of '%' and '\_' in a query statement? 1
- (f) How Group By clause is different from Order By clause in MySQL? 2
- Q4 (a) Declare and define a method show which accept any number as parameter and returns 1 if number is multiple of 3 else returns 1. 2

**OR**

- (a) Declare an object 'dept' of a class 'Department' and also call the method show(). 2
- (b) What is the difference between class member and Instance member? 1

**OR**

- (b) What is the difference between abstract class and concrete class? 1
- (c) Write the sample code to store the selected value of list box li1 in a string variable Str? 1
- (d) Name any two methods associated with JOptionPane class. 1

**OR**

- (d) What is an use of the methods setEchoChar( ) and getSelectedIndex( )? 1
- (e) RajMahal Hotel computerized its Billing System. Given below the data entry screen through which bill amount is calculated.



| Type of Plate | Breakfast/Plate | Lunch/Plate | Dinner/Plate |
|---------------|-----------------|-------------|--------------|
| Veg           | 100             | 200         | 300          |
| Non Veg       | 200             | 400         | 500          |

- (i) Write the code for calculate button to calculate amount as per the rate specified in the table, 3  
service tax (12% of amount) . Total bill amount=total + service tax
- (ii) Write code for exit button to close an application. Use `ConfirmDialog` with the following 2  
Message “Are you sure you want to Exit” if user presses yes button then application should  
be closed.
- (iii) Write the code for clear button to clear all the controls. 1
- (f) What will be displayed in `textField1` when following code will be executed? 2
- ```
StringBuffer city=new StringBuffer("PRADESH");
StringBuffer string=new StringBuffer( );
String.append(new String(city));
int len=city.length()-1;
string.insert(len,"Simanchal");
textField1.setText(string.toString());
```
- (g) Observe the given code: 1
- ```
int x=7, y=5;
while(x<=12)
{ x+=y--; }
```

Attempt the following questions based on the code given above:

How many times the loop given above will execute.

**OR**

- (g) Rewrite the following code segment using `for... loop` without effecting the output of 1  
the code:
- ```
int a=0, j;
while(a!=20)
{   j+=a;
    if(a%5==0)
    {   a+=5;   }
    else {   a+=1;   }
```

```

    a+=2;
}

```

- Q5 (a) Mr Sen wants to remove all rows from **Sales** table whose **Price** is not known 1
Suggest him MySQL command/statement he should use for the same?
- (b) What will be an output of the following transaction after its execution: 2

Table: XYZ

A	B	C
1	11	111
2	22	222
3	33	333

```

>SET AUTOCOMMIT=0;
>INSERT INTO XYZ VAUES(5,55,555);
>UPDATE XYZ SET C=C+20;
>SAVEPOINT S1;
>DELETE FROM XYZ WHERE B=22;
>ROLLBACK TO S1;
>COMMIT;
>SELECT * FROM XYZ;

```

OR

- (b) Define the different properties of a transaction?
- (c) Consider the table **SPORTS** given below. Write commands in MySQL for (i) to (v) and output for (vi) & (vii).

SPORTS

SrNo	SName	Class	Game	Grade	Fees
1	Rahul	12	Cricket	A	53000
2	Sugandha	10	Football	B	88000
3	Saumil	11	Cricket	NULL	44000
4	Pradip	10	Football	B	23000
5	Amit	11	Carrom	A	75000
6	Vivek	12	Tennis	C	11000

- (i) To display the SName and Fees as annual Fees.(consider fees is monthly shown) 1
- (ii) To display different game . 1

- (iii) To display first 4 characters of SName. 1
- (iv) To display the SNAME, GAME and FEES of all players whose fees is greater than 45000 and less than 70000(both values inclusive). 1
- (v) Display the sum, Minimum and Average of Fees. 1
- (vi) Select concat(SName,substr(Game,2,2)) from Sports. 1
- (vii) Select SName, Class, GAME from SPORTS where SName not like 'B%'. 1
- Q6 (a) What is the difference between Candidate key and Alternate key? 1
- (b) Discuss the significance of having clause and where clause in MySQL? 1
- (c) Write MySQL command to create the table "Books" as per specification given below: 2

Field	Type	Constraints
Book_Id	varchar(6)	Primary Key
Book_Name	varchar(30)	Not Null
Author_Name	varchar(30)	
Publishers	varchar(50)	Default "CBSE"
Price	Integer	
B_type	varchar(15)	

- (d) In a database Flights, there are two tables given below:

PASSENGERS

PID	FCODE	PNAME	GENDER
P001	IG165	SAHIL	M
P002	AI123	KETUL	M
P003	JA123	MILIND	M
P005	IG169	RAKSHA	F

FLIGHT

FCODE	FARE	SOURCE	DESTINATION
IG169	5500	ADI	MUMBAI
AI123	3500	RAJKOT	SURAT
JA123	6500	GOA	DELHI
IG165	7500	DELHI	KOLKATA

Write SQL queries for the following:

- (i) Display the detail of passenger whose destination is MUMBAI or KOLKATA. 2

- (ii) Display the PID, GENDER from Passenger table and FARE and SOURCE from FLIGHT table of all passenger whose records are present in FLIGHT table. 2
- (iii) Identify the column which is suitable for foreign key. 1
- (iv) Mr. Suresh wants to delete a record from Passenger table but while removing it he is restricted from it. Suggest him probable reason for the same. 1
- Q7 (i) Write any four economics benefits of ICT ? 2
- (ii) Write any two benefits of e-learning? 1
- (iii) Surya is creating a form for School where she works. Help him to choose most suitable controls for the following functions: 2

Sr. No	Functions
1	To select gender out of M or F.
2	To select stream from Science, Commerce and Arts.
3	To select different subjects.
4	To enter Suggestions.