

Please check that this question paper contains 7 questions and 8 printed pages.

**Class : XI**  
**INFORMATICS PRACTICES**

Time Allowed : 3 Hours

Maximum Marks : 70

**General Instructions :**

- All the questions are compulsory.
- The Question paper contains 7 Questions.
- Programming Language used : Java and RDBMS used : MySQL.
- 15 minutes time has been allotted to read this question paper. During this time, the student will read the question paper only, he / she will not write any answer on the answer book during this period.

1. (a) (i) Identify the port that gives a single, standardized easy to use way to connect a variety of devices to a computer. 4
- (ii) How Trojan Horse is a security threat?
- (iii) Expand the following term.
- (a) LCD (b) QR Code
- OR
- (a) CAPTCHA (b) BIOS
- (iv) Differentiate between RAM & ROM.
- (b) What is a utility software? Give two examples of utility software. 2
- (c) Identify the type of software 1
- (i) The software acts as an interface between a user and the hardware (i.e. all computer resources)
- (ii) If converts the program written in HLL into machine language by converting & executing it line by line.
- (d) (i) Jyoti has downloaded some freeware software from internet after some time she noticed that her computer network has slowed down. Now she is unable to install new software due to insufficient memory. What do you think had happened to her system? 2
- (ii) Also specify any one security measure that she should use to avoid such type of problem in future.

**OR**

Give the input / output device used for :-

- (i) to convert images, printed text or an object into digital image.
- (ii) Popular as a security device to provide restricted entry for secured areas.

- (e) Which of the following units are same 1  
 $2^{10}$ GB,  $2^{20}$ KB,  $2^{40}$ B,  $2^{10}$ TB

2. (a) Sonali has written the following code to count the number of items in the combo box but she has got an error. You help her in writing the correct statement. 1

```
Object S = jComboBox1.getSelectedItem();  
jTextField1.setText(" "+S);
```

- (b) What is the purpose of toString() method in the following statement 1

```
int sum = 50;  
jTextField1.setText(Integer.toString (sum));
```

**OR**

Shivani has developed an application and has created a login window. She has also used password field to restrict the unauthorised access. Which method of password field returns the text entered in the password field.

- (c) Find the output of the following code : 1

```
int p=9, q=4, r;  
r=++p +--q;  
r+=5;  
jTextArea1.setText(""+r);
```

**OR**

```
int a=1, b=2;  
while (++a<5)  
a*=b;  
jTextField1.setText(""+a);
```

- (d) Write any two properties which exist in 2
- (i) jTextArea but not in jTextField
  - (ii) jComboBox but not in jList

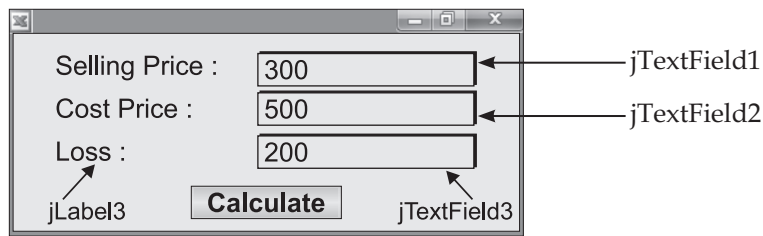
**OR**

- (i) Identify the type of error(s) in the following code :

```
int a=10, b=0;  
int m=a/b;  
jTextField1.setText(""+m);
```

- (ii) Name the method which is helpful in entering data through a dialog box.

- (e) Write a java code to accept two different values for the selling price and cost price textfields. Calculate 'Profit/Loss' and display it into JTextField3. You also display "Profit/Loss" message in its corresponding JLabel3. 3



- (f) Identify the error(s) and rewrite the correct code underlining all the corrections made :

2

```
double d=12.5; m=6.2;
if (d=m)
jTextField1.setText(Integer.toString(m));
else;
jTextField1.setText("Wrong Value");
```

3. (a) Last week Manisha has created 'ITEM', 'STATIONERY', 'GAMES' and 'BOOKS' tables in 'PERSONAL' database. Now she wants to enter records in 'STATIONERY' table but she has forgotten the column names. Suggest appropriate commands to her for doing the following tasks :

$\frac{1}{2} + \frac{1}{2} + 1 = 2$

- (i) Open the database.
- (ii) To know the structure of STATIONERY table.
- (iii) Add a new column 'CATEGORY' of size 30 to table STATIONERY.

- (b) Jatin has created a table 'STREAM' and entered the following records in it.

2

Code	Subject	Students
041	Mathematics	24
301	English	30
028	Political Science	23
027	History	19

His friend Tarun deleted column 'Students' and added two more records to the table. What was the cardinality and degree of the table 'STREAM' before and after modifications made by Tarun.

**OR**

Differentiate between LEFT() and RIGHT() library functions in MySQL with an example.

- (c) Differentiate between UPDATE and ALTER commands. Give one example of each.

2

**OR**

Differentiate between Primary Key & Foreign Key.

- (d) Consider the table RESULT given below. Write the commands for (i) to (iv) statements.

4

SID	NAME	STIPEND	SUBJECT	DIVISION
1	Sharon	400	English	Third
2	Amar	680	Mathematics	First
3	Vedant	500	Accounts	First
4	Upasana	550	Geography	Third
5	Aman	400	History	Second

- Write command to display different subjects without repetition.
- Organization wants to increase the stipend of all first division students by 5%. Write the appropriate command to do so.
- Amar has got transferred. Give command to remove his record from the table.
- Display records of all candidates in descending order of stipend.

4. (a) Rewrite the following code using for loop

2

```
int s=0;
while (s<=10)
{
    if (s%3==2)
        jTextField1.setText("Red Colour");
    else
        jTextField1.setText("Green Colour");
    jLabel1.setText("New Colour");
    s=s+1;
}
```

**OR**

Predict the output of the following code segment if value of variable m is.

- 'B'
- 'd'

Justify your answer.

```
switch(m)
{
    case 'A' : jTextField1.setText("Food Grade");
    case 'B' : jTextField1.setText("Second Grade");
    case 'C' : jTextField1.setText("Grade New");
        break;
    case 'D' : jTextField1.setText("Grade Old");
        break;
    default : jTextField1.setText("Default");
}
```

- (b) Write an appropriate datatype for the following statement. 1  
\_\_\_\_\_ d= jButtonon1.isSelected();
- (c) How many times the loop gets executed? What value will be displayed in jTextField1? 2  
int s=36;  
int t=6;  
for(;t<=s; t+=3)  
{  
    t=t+6;  
}  
jTextField1.setText(""+t);
- (d) Rewrite the following segment using switch - case statement. 2  
char code='S';  
if (code=='S')  
    jTextField1.setText("Science Stream");  
else if((code=='B') || (code=='C'))  
    jTextField1.setText("Commerce Stream");  
else if(code=='H')  
    jTextField1.setText("Humanities");  
else  
    jTextField1.setText("Other Stream");

**OR**

Rewrite the following code using equivalent while loop

```
int S1=25, i, sum;  
for (i=0, sum=0; i<s1; i=i+1)  
sum+=i;
```

- (e) Write the value that will be stored in variable m after execution of the following code if : 2  
(i) initial value of m is 10.  
(ii) initial value of m is 12.  
int n = 11;  
if (m>n)  
m=m+5;  
m+=2;
- (f) ABC gadgets company is computerizing their billing system. Given below is the data entry screen through which bill amount is calculated.

**ABC Gadgets (Wireless Speakers)**

Enter Customer Name :

Select Gadgets Brand :  Philips  Sony  X-Mini

Price :

Enter Quantity :

Amount :

Service Tax 10%

Shipping Charges 300/-

Net Payable Amount :

Brand	Price (Rs.)
Philips	7000
Sony	4000
X-Mini	3000

Consider the above interface and write java code for the following.

(i) When 'Calculate Bill' Button is clicked calculate amount (price × quantity), service tax 10% on amount. In case customer is availing shipping facility than he / she must pay Rs. 300/- extra charges. 4

CalculateNetpayableamount=amount+servicetax+shippingcharges.

(ii) Write code to clear all text fields & check boxes & set Phillips as the Default option. 1

(iii) Close the application on click of close button. 1

5. (a) (i) What do you understand by Aggregate Functions in SQL? 1+1=2

(ii) Write any two String functions which return a numeric value.

**OR**

Create a table product with following structure

<u>Field Name</u>	<u>Data type</u>	<u>size</u>	
P_id	char	5	Primary Key
P_name	varchar	20	
Ord_date	Date		
Price	Decimal	(7, 2)	

(b) Given below is the structure of table Employee

1+1

Employee

+2=4

Emp_ID	Emp_Name	Department	Salary
--------	----------	------------	--------

Write queries to

- (i) To display names and 20% commission of all 'Sales' Department employees without making any changes in the table data.
- (ii) The given query has an error. Rewrite the correct statement to remove the record having Emp\_id as 70.  
DROP \* FROM Employee WHERE Emp\_ID=70;
- (iii) Tell two features of MySQL and also suggest names of two RDBMS other than MySQL.

OR

Write suitable commands / clause / operator for the following.

- (i) To display month from date 20 December 2017.
- (ii) To display value 35.193 rounded off to one decimal place.
- (iii) To display current date & time of system.
- (iv) To display 'Hari Mohan' in uppercase.

(c) A table FURNITURE has the following columns and the table has 10 records too :

2

Furniture_Id
Category
Material
Stock_Quantity
Price
Colour
Warrenty

- (i) Write a command to add a record with Furniture\_Id=270, Category="Double Bed' and Colour='Brown' into their corresponding fields.
- (ii) Give command to display details of furniture whose category is not specified in the table or whose category has NULL value.

(d) (i) Write the difference between '%' and '\_' wild card characters  
(ii) Differentiate between Dayname () & Dayofweek()

2

6. (a) Write the output of the following SQL statements.

1×2=2

- (i) SELECT Power (Instr ('Welcome', 'm'), 2);
- (ii) SELECT SUBSTRING ("Determination", -8, 3);

(b) (i) SELECT Truncate (446, -2);

1×2=2

- (ii) SELECT ASCII ('Delhi');

OR

Differentiate between Curdate() & Now();

- (c) Write SQL Commands for (i) to (iii) and output of (iv) to (vi) based on the following PRODUCT table : 1×6=6

Code	NAME	Price	Phurchase Date	Brand	Stock
1	Motherboard	7000	12-05-2017	Intel	20
2	Keyboard	1000	22-04-2016	TVSE	70
3	Mouse	500	01-09-2017	Logitech	50
4	Soundcard	NULL	05-01-2019	Samsung	60
5	Speaker	600	23-04-2016	Samsung	25

- (i) Display name of the products having 'board' in their names.  
(ii) Display brand and price of all the products purchased in year 2016.  
(iii) Add a new record to PRODUCT table (6, 'Optical mouse', 700, null, 'Logitech', 30)  
(iv) SELECT Instr (brand, 's') FROM PRODUCT WHERE stock>50;  
(v) SELECT mid(Name, 3,2) from PRODUCT WHERE stock in (20, 25);  
(vi) SELECT concat(Name, Price) from PRODUCT where brand = 'SAMSUNG';
7. (A) In India, government is spending lots of money on E-Governance even after that e-Governance is not applicable everywhere. Mention any two limitations of it. 2

OR

Give any two benefits of e-governance

- (b) Mr. Rakesh is creating a form for "D.A.V. School Cultural Club Application". Help him to choose the most appropriate controls among list box, Check box, Text field, Text area, Radio button, Combo box, label and command button for the following entries : 2

Sr. No.	Functions	Controls
1	To enter the participant name.	
2.	Select timings : morning / evening.	
3.	To choose one category out of the following cultural activities : Drawing, wood work, music, singing, photography, pottery and ceramics.	
4.	Reason for becoming a club member. (in short paragraph).	

- (c) How E-learning is beneficial for special need students? 1