

CLASS XII

SAMPLE PAPER-065

INFORMATICS PRACTICES

Time:3 Hrs.

M.M:70

General Instructions:

- I. All Questions are compulsory
- II. Marks are given in front of each question

Q1(a) The 'Chalchitra' theatre has a computer network. The network is in one building. 2

- (i) Name this type of network(out of LAN/MAN/WAN).
- (ii) Name one communication channel that can be used for fast communication between workstations of the network.

(b) Explain in brief any 2 security threats to Computer networks. 2

(c) Write the advantages of using Unicode to represent text. 2

(d) Write one example each of URL and IP address. 2

(e) Define Snooping and DoS 2

Q2.(a) While working in Netbeans, Ms. Sonia has designed a login page where she wants to display **“Welcome”** or **“Try again”** message depending on the password entered by the user in text field named 'jTextField1'. If password entered is “India”, 'Welcome' message should be displayed otherwise 'Try again' message should be displayed. Help her in choosing more appropriate statement out of 'If statement' and 'Switch statement'. Give reason for your choice. 1

(b) Write Java code to assign the value 10 to variable x and store its square value in another variable y. 1

(c) Deepti works as a programmer in a travel company. She has developed the following code to display travel detail according to user's choice. Help her in rewriting the same code using SWITCH CASE: 2

```
if(choice==1)
    jTextField1.setText("New Delhi to Goa");
else if(choice==2)
    jTextField1.setText("New Delhi to Paris");
else if(choice==3)
    jTextField1.setText("New Delhi to Bangkok");
else
    jTextField1.setText("Pl. choose valid option");
```

(d) Albert works as a website developer in Global Website Designers company. 2
Currently he has created following tags in XML:

`<STUDENT>...</STUDENT>`

`<Student>....</Student>`

Are these tags part of HTML code or XML code? Are these same or different?

(e) Shambhavi has to design two web pages with following specifications: 2
i. One web page should have an unordered list.
ii. Another web page should have background "Yellow" in colour.
Suggest her suitable tag(s) and attribute(s) for the above specifications.

(f) Write the commands in Java that takes a number in Dialog box and calculates its factorial. 2

Q3. (a) While creating the table Student last week, Ms. Sharma forgot to include the column Game_Played. Now write a command to insert the Game_Played column with VARCHAR data type and 30 size into the Student table? 2

(b) In today's digitized world with a need to store data electronically, it is very important to store the data in the databases. SQL is used to interact with the Database Management System. 4

I. Classify the following commands according to their type :(DDL/DML)

i. INSERT INTO ii. ALTER TABLE

II. Which clause would you use with Select to achieve the following:

i. To select the values that match with any value in a list of specified values.
ii. Used to display unrepeatd values of a column from a table.

III. Chhavi has created a table named Orders, she has been asked to increase the

value of a column named salesamount by 20. She has written the following query for the same.

Alter table Orders Add salesamount =salesamount+20;

Is it the correct query? Justify.

(c) Name any one Single row function and any one Aggregate function. Also mention the difference in their working. 2

(d) Geetanjali had created a table “Customer” in the database “Test”. Immediately after the successful creation of the database, she wrote the Rollback command to undo the creation of the table. Did she execute rollback successfully? Explain. 2

Q4.(a) Ms. Meena is not able to understand the statement “**Java is a case sensitive language**”. Help her in understanding the above mentioned statement by giving suitable example. 1

(b) Ms. Rachel is designing a frame in Netbeans in which she has used four Radio Button controls. She want that only one radio button out of four should be selected at a time. Which property of the Radio Button should be selected to achieve the same? 1

(c) What will be displayed in JTextArea1 after the following code is executed: 1

```
int i;
for(i=10;i<50;i=i+30)
{
i=i+15;
jTextArea1.append(""+i);
}
jTextArea1.append("\n"+i);
```

(d) Do as directed : 4

I. Find the output of the following Java code snippet after execution of each java statement labelled as Stmt 1, Stmt 2, Stmt 3, Stmt 4:

```
String str1="VASUDHAIVA",str2="KUTUMBAKAM";
```

```
jTextArea1.append((str1.substring(0,4))); //Stmt 1
```

```
jTextArea1.append((str2.substring(4))); //Stmt 2
```

```
jTextArea1.setText(jTextArea1.getText()+jTextArea1.getText().length());//Stmt 3
```

```
jOptionPane.showMessageDialog(null,jTextArea1.getText().length()); //Stmt 4
```

II. Rewrite the following code using do while loop:

```
int num=Integer.parseInt(jTextField1.getText());
while(num<=40)
{
jOptionPane1.showMessageDialog(null,num);
num=num*20;
}
jOptionPane1.showMessageDialog(null,"Bye Bye");
```

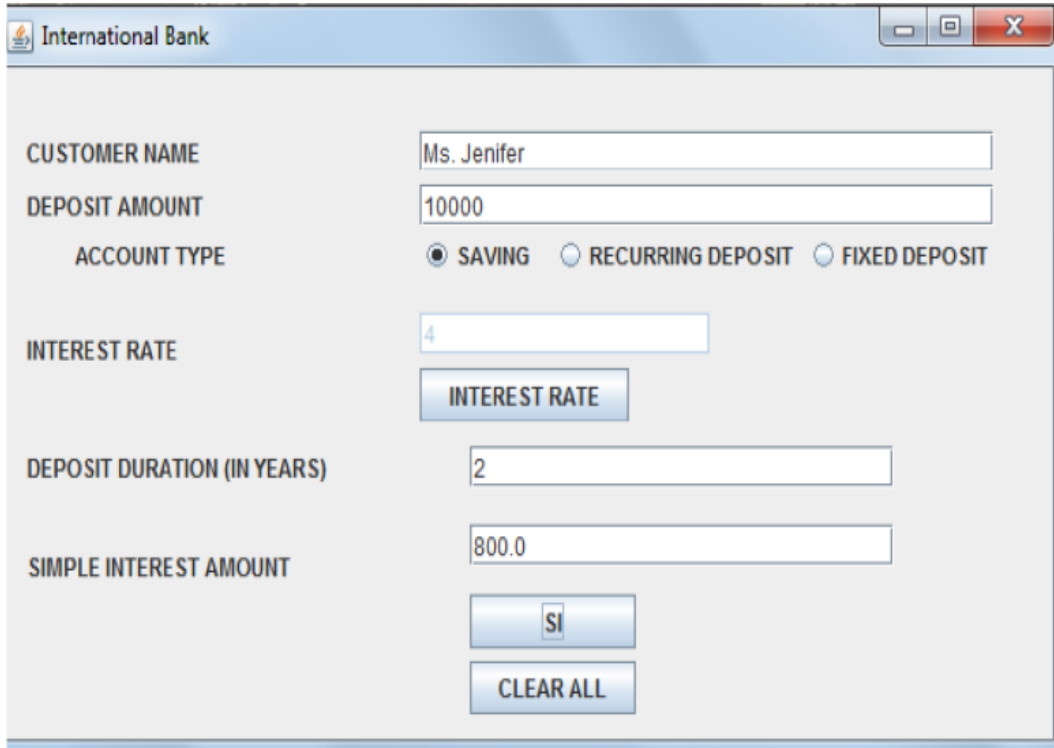
(e) The following code has error(s). Rewrite the correct code underlining all the corrections made :

2

```
value1=1, value2=2;
while(value1<value2)
jTextArea1.append ("\n"+value1*value2;
value1++
}
```

(F) Ms. Rakhi works for an International Bank as an IT Head. She designed a simple interest calculator program as shown below:

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The interest rate is given based on the account type as shown below:

ACCOUNT TYPE	INTEREST RATE %
SAVING	4 %
RECURRING DEPOSIT	6 %
FIXED DEPOSIT	8 %

- Write the code required for 'INTEREST RATE' button to display interest rate as per the above given criteria.
- Write the code required for 'SI' button to calculate and display 'Simple Interest' based on the given formulae:

$$SI = (\text{amount} * \text{interest_rate} * \text{duration}) / 100;$$
- Write the code required for 'CLEAR ALL' to clear all the textfields

- Q5. (a) Which function is used to display current date and time in MySQL? 1
 (b) Which function in MySQL is used to remove trailing and leading spaces from a string? 1
 (c) Write the select statement in MySQL using function to extract five characters from second position of a string "HEM LATA MODI"? 2

(d) Why we use % and * symbol in select statement? 1

(e) Consider the table **PLAYER** given below. Write command in MySQL for (a) to (f)

P_ID	P_NAME	CITY	DOB	GAMES	FEE
P01	MOHAN	JAMMU	1990-04-01	FOOTBALL	30000
P02	GEETA	HARIYANA	2000-08-02	ATHLETICS	25000
P03	BABITA	HARIYANA	1997-01-01	ATHLETICS	28000
P04	ROHAN	DELHI	2005-12-21	CRICKET	95000
P05	SOHAN	MEERUT	2002-08-02	CHESS	75000

- (a) To display sum of fees as per their city. 1
- (b) To display name each Player whose name contains 'B' as last character. 1
- (c) To display Id, Name and games of eldest player. 1
- (d) Count the different games. 1
- (e) To display the name of the month of date_of_birth of players of Athletics . 1
- (f) Increase the fees of all players by 5%. 1

Q6. (a) Write the SQL command to create a table Student with the following structure: 2

TABLE :SPORTS

FIELD	TYPE	CONSTRAINTS
Rno	Integer(3)	Primary key
Name	Varchar(20)	NotNull
DOB	Date	
Address	Varchar(30)	
City	Varchar(10)	

(b) In a database there are two tables "Employee" and "Dept" as shown below: 2

DEPT

Dept_code	Dept_Name
MKT	Marketing
FIN	Finance
IT	Information Techonolgy

EMPLOYEE

Emp_no	Emp_Name	Sex	Dept_Code
1	NEHA	F	FIN
2	MUKUL	M	MKT
3	PUNEET	M	IT
4	SUDHA	F	IT
5	DIVYAM	M	MKT

- I) Identify the foreign key column in the table Employee.
- II) How many rows and columns will be there in the Cartesian product of these two tables.

(c) In a database there are two tables "ITEM", and "Customer" as shown below: 6

ITEM

P_ID	ProductName	Manufacturer	Price
1001	Moisturizer	XYZ	40
1002	Sanitizer	LAC	35
1003	Bath Soap	COP	25
1004	Shampoo	TAP	95
1005`	Leans Salution	COP	350

CUSTOMER

C_ID	ClientName	City	P_ID
01	Samridh Ltd	New Delhi	1002
05	Big Line	Mumbai	1005
12	97.8	New Delhi	1001
15	Tom n Jerry	Bangalore	1003

Write the commands in SQL for the following:

- i. To display the details of items whose price is in the range of 40 and 95.
 - ii. To display the Clientname, City from Customer and Item name and price from table Item, with their corresponding matching ID
 - iii. To Increase the price of all the products by 50
- Q7.(a) Define E-Learning. Write name of any two popular E-learning websites ? 2
- (b) List any two features of good interface? 1
- (c) c)What control will you suggest for the following: 2

S.No	Control used to	Control
1	A mouse click	
2	Typed text(Multiple line)	
3	Choose gender(M/F)	
4	Submit the form	

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