CLASS XII
SAMPLE PAPER
INFORMATICS PRACTICES(065)

Q1.(a)Write the purpose of the following: 2
      (i) Repeater   (ii) NIU
 (b) Expand the following abbreviations: 1
      (i) FSF   (ii)   GPL
 (c) A software company develops gaming software and sells it without providing its source code. 2
    For promotional purpose the company provides demo versions of its games free of cost through
    the internet. Are these demo versions examples of open source software? Justify your answer.
 (d) What are following software used for: 2
      (i) Open Office   (ii) Mozilla
 (e) Name the **type of network** formed and the most suitable **communication channel** for each of
    the following situations: 2
      (i) Communication between two offices in a university campus in hilly area
      (ii) To transfer data from one mobile phone to another
 (f) What is the significance of cyber law?   1

Q2.(a) Giving suitable example explain conditional operator in Java.   2
 (b) Given a string object namely **subject** having value as "12" stored in it. What will be the result of 1
    following code?
      JOptonPane.showMessageDialog(null, " " + subject.length() + Integer.parseInt(subject));
 (c) What is return type of **setText( )** and **toLowercase( )** methods in java ?   1
 (d) Write any two properties of a Constructor function.   1
 (e) What are actual and formal parameters of Java method?   2
 (f) Write a purpose of **void** as return type in a method definition.   1
 (g) How many times will the following loop will execute?   1

```
int num=5;
do
{
System.out.println(num++);
--num ;
}while (num!=0);
```

 (h) Identify the errors in the following code . Write the correct code and underline the corrections made. 2

```
float principal = prinTf.getText();
int time = timerTF.getText();
float int = principal * 0.08 * time;
JOptionPane.showMessageDialog("Interest is"+ int);
```

 (i) Change the following code using **for** loop without affecting the output.   2

```
int j=1, s=0 ;
while (j<10)
{
System.out.println(x+1);
s=s+j ;
j+=3 ;
}
```

 (j) Write Java code that takes an integer number **N** as input from **jTextField1** and displays the product of all
digits of the number **N** in **jLabel1**. (Example if user inputs 327, code should produce output as 42 (3x2x7)).

2

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Q3.(a) Which MySQL command helps you to see the list of existing databases in a computer?   1
   (b) After creating the "**school**" database you want to use it. Write the command you should use.   1
   (c) Reena created a table named as **Student**, she wants to see records of those students whose name
      has second last character as **t**. She wrote a query but not getting the desired output.   2
      Select * From student where name = "_t";
   Help Reena to run the query by removing the error(s) from the query and rewriting it.
   (d) Sanjeev is not able to recover the dropped table named as **employee**. Write the reason for the
      same.   1
   (e) Giving suitable example explain the concept of primary key and candidate key.   2
   (f) Given below is Emp_No, Emp_Name and Basic of table "Emp":   1

Emp_No	Emp_Name	Basic
6985	Anil	9700
5874	Kiran	8500
6787	Kirti	NULL
5898	Ravina	5500

      Write output for the following queries:
         (i) Select Avg(Basic) from Emp ;
         (ii) Select Emp_Name,Basic+100 from Emp where Basic<8000 ;
   (g) What is output of   2
         (i) Select SUBSTR("CORPORATE FLOOR", -10, 4);
         (ii) Select INSTR(RIGHT("Welcome", 4), "M") ;

Q4. (a) Attempt the following questions with respect to HTML/XML: 2
         (i) Write the HTML code to insert image "**tiles.bmp**" in background of HTML document.
         (ii) Write the HTML code to display two numbered text items Laptops and Walkman
   (b) Write any two advantages of XML over HTML.   2
   (c) Read the following case study and answer the questions that follow using Java NetBeans IDE.:-
      Blue Valley Public School has computerised its registration for class XI students. Given below is
      the data entry form for same.   (1+3+1+1=6)

Control Name	Controls	Description
Text field	jTextField1	To accept admission number of the student
Text field	jTextField2	To accept Name of the student
Text field	jTextField3	To display total fee of the student
Radio button	jOptCom	To choose Commerce subject

Radio button	jOptArts	To choose Arts subject
Radio button	jOptMed	To choose Medical subject
Radio button	jOptNonMed	To choose Non Medical subject
CheckBox	jChkBox	To enter information whether the computer is opted
Button	jButton1	To perform the different tasks which are mentioned below.
Button	jButton2	
Button	jButton3	
Button	jButton4	

(i) On clicking the initial button the jTextField1 and jTextField2 should be set as disable.

(ii) On clicking the Calculate button the Total Fee is calculated on the basis of the following

criteria: **Stream**   **Fee(Rs.)**

      Commerce   2500

      Arts   2000

      Medical   2900

      Non-Medical   2800

If the student has opted for Computers Rs. 200 will be added to the Fee. The Total Fee should be displayed in jTextField3.

(iii) On Clicking the Clear button Textfields and Checkbox should be cleared.

(iv) On Clicking the End button the application should be closed after displaying the

      message "Thanks for using Application" in message dialog box.

Q5.(a) Given below is the **Emp** table: 2

ENO	NAME
1	Anita Khanna
2	Bishmeet Singh

```
SET AUTOCOMMIT=0;
INSERT INTO EMP VALUES(3, 'RAMESH');
COMMIT;
UPDATE EMP SET NAME= 'RAMESH SHARMA' WHERE ENO=3;
SAVEPOINT A;
INSERT INTO EMP VALUES(6, 'SAMITA');
SAVEPOINT B;
DELETE FROM EMP WHERE ENo= 2;
ROLLBACK TO SAVEPOINT A;
```

What will be the output of the following SQL query:
    SELECT * FROM EMP;

(b) Write SQL command for creating a table **PAYMENT** having following structure:-   2

Field Name	Data Type	Size	Constraint
Loan_Number	Numeric	5	Part of Primary key
Payment_Number	Varchar	3	Part of Primary key
Payment_Date	Date		NOT NULL
Payment_Amount	Numeric	7	

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| Payment_Type | Varchar | 10 | Can be Cheque or Cash |

(c) Consider the Table **Teacher** given below. Write commands in SQL for (i) to (vi).   6

Teacher

ID	NAME	DEPARTMENT	HIREDATE	CATEGORY	GENDER	SALARY
1	Tanya	English	1994-03-1	TGT	F	25000
2	Saurabh	Hindi	1990-02-1	PGT	M	20000
3	Jaspreet	English	1980-05-1	PGT	F	30000
4	Disha	Math	1989-10-1	PRT	F	25000
5	Sidharth	Math	1990-08-0	TGT	M	22000
6	Sonali	Math	1994-09-0	PRT	M	27000

 (i) To display Name and Hiredate of teachers belonging to PGT Category.
 (ii) To list names of female teachers of Math department in descending order of name.
 (iii) To count the departments in the school.
 (iv) To modify the table by declaring ID as Primary key.
 (v) To increase the salary of all teachers by 20%.
 (vi) To delete the records of male teachers of PRT category.

Q6(a) Write one point of similarity and one difference between CHAR and VARCHAR data types in MySQL.   2

 (b)In a database there are two tables Books and Issues.   (1+1+2+2=6)

Table: Books

Book_ID	Book_Name	Author_Name	Publisher	Price	Qty
B01	Math	Raman	BPB	70	20
B02	Science	Agarkar	Tata	90	15
B03	Social	Suresh	BPB	85	30
B04	Computer	Sumita	Goyal	75	7
B05	Punjabi	Gursharan	BPB	60	25
B06	English	Wordsworth	Tata	55	12

Table: Issues

Issue_ID	Book_ID	Qty_Issued
1	B01	13
2	B02	5
3	B05	21
4	B01	4

(i) Identify the foreign key in the table Issues and justify also.
(ii) What will be the Cardinality of equi join is performed on these two tables.
(iii) Write command to display the Book_ID,Author Name and Qty issued of those books which are published by BPB
(iv) Write a command to display the total Quantity of books published by each publisher

(c) What is a transaction? Explain **Atomicity** property of transaction.   2

Q7. (a) Write any two positive impacts of e-Governance?   1
 (b) How e-Learning is helpful for a trainer. Write two points. Also name any web site for e-Learning.   2   (c)
Rajesh is developing his project on Customer Management for CBSE Examination.   2   Help him to choose most appropriate controls from List Box, Combo Box, TextField,
 TextArea, RadioButon, Check Box, Label, Password Field and Command button for the following entries from the user:

Sr. No.	Control used	Control Name

1	to select any subject and in absence of subject it can be entered	
2	display the photograph of student	
3	display current date	
4	for entering mode of payment out of debit card, credit card, visa card	

ANSWER KEY
CLASS: XII
SUBJECT: INFORMATICS PRACTICES (Code 065)

Q1.(a) (i) To amplify the signals   (ii) Network Interface Unit to interpret the signals between server and client.

   (b)) FSF- Free Software Foundation   (ii)   GPL- General Public License

   (c) Shareware; as it is for limited time and source code is not available.

   (d)   (i) Open Office – To create office documents   (ii) Mozilla- Web Browser

   (e) (i) Communication between two offices in a university campus in hilly area-
          LAN & Coaxial cable

     (ii) To transfer data from one mobile phone to another- PAN, Bluetooth or infrared

   (f) To control cyber crime.

Q2.(a) Ternary operator (?) work on three operands. Eg. tax=(Income<=150000)?0; 0.10*Income;

   (b) **212**

   (c) **setText( )- void** and **toLowercase( )- String**

   (d) (i) Same name as that of class (ii) Automatically executes when object is created

   (e) Actual parameters are in the calling statement and formal parameters are in header line of
       method definition.

   (f) **void** return type means function will not return any value.

   (g) Infinite times

   (h)   float principal = Float.parseFloat(prinTf.getText());
                int time = Integer.parseInt(timerTF.getText());
                float in = principal * 0.08 * time;
                JOptionPane.showMessageDialog(null,"Interest is"+ in);

   (i) Change the following code using **for** loop without affecting the output.   2
                int j, s=0 ;
                for(j=1; j<10; j+=3)
                {
                System.out.println(x+1);
                s=s+j ;
                }

   (j)   int **N=Integre.parseInt(jTextField1.getyText())**
          int p=1;
          while(N>0)
          { D=N%10; P=P*D; N=N/10; } System.out.println(P);

Q3.(a) Show Databases;

   (b) USE **school;**

   (c)   **Select * From student where name like "%t_";**

   (d) DDL command cannot be roll backed.

   (e) In student table Admno,Rollno are candidate keys as these are unique and not null but one can be selected
as primary key as per convenience. Candiadte keys can be many in a table whereas; primary can only be one.

   (f) Given below is Emp_No, Emp_Name and Basic of table "Emp":   1

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Emp_No	Emp_Name	Basic
6985	Anil	9700
5874	Kiran	8500
6787	Kirti	NULL
5898	Ravina	5500

Write output for the following queries:
  (i) 7900
  (ii) Ravina 5600
(g) What is output of   2
  (i) RATE
  (ii) 3

Q4. (a) Attempt the following questions with respect to HTML/XML: 2
    (ii)   <Body Background="**tiles.bmp**">
    (ii) <OL> <LI>Laptops <LI> Walkman </OL>

  (b) XML- new tags can created and works on data.

  (c)
        (i)   jTextField1.setEnabled(false);

            jTextField2. setEnabled (false);

        (ii) int fee;

          jTextField1.setEditable(true);

          jTextField2.setEditable(true);

          if(joptCom.isSelected())

           fee = 2500;

           if(joptArts.isSelected())

           fee = 2000;

          if(joptMed.isSelected())

           fee = 2900;

          if(joptNonMed.isSelected())

           fee = 2800;

           if(jChkBox.isSelected())

                Total_fee = fee+ 200;

            else

                 Total_fee = fee;

      jTextField3.setText(" " + Total_fee);

        (iii) jTextField1.setText(null);   jTextField2. setText (null);   jTextField2. setText (null);

        (iv) JOptionPane.showMessageDialog(null,"Thanks for using this appl;ication"); System.exit(0);

Q5.(a) Given below is the **Emp** table: 2

ENO	NAME
1	Anita Khanna
2	Bishmeet Singh
3	RAMESH SHARMA

(b) Create table **PAYMENT(** Loan_Number Numeric(5),Payment_Number Varchar(3), Payment_Date Date Not Null, Payment_Amount Numeric(7), Payment_Type Varchar(10) Check Payment_Type IN("Cash", "Cheque"), Primary Key(Loan_Number, Payment_Number));

(c) Consider the Table **Teacher** given below. Write commands in SQL for (i) to (vi).   6

Teacher

ID	NAME	DEPARTMENT	HIREDATE	CATEGORY	GENDER	SALARY
1	Tanya	English	1994-03-1	TGT	F	25000
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5	Sidharth	Math	1990-08-0	TGT	M	22000
6	Sonali	Math	1994-09-0	PRT	M	27000

 (i) SELECT Name,Hiredate FROM teacher WHERE CATEGORY= "PGT";
 (ii) SELECT name FROM TEACHER WHERE GENDER= "F" AND DEPARTMENT="MATH" order of name DESC;
 (iii) SELECT count(DISTINCT DEPARTMENT) FROM TEACHER;
 (iv) ALTER TABLE TEACHER ADD PRIMARY KEY(ID);
 (v) UPDATE TEACHER SET salary= SALARY + 0.20*SALARY;
 (vi) Delete FROM TEACHER WHERE GENDER= "M" AND CATEGORY= "PRT";

Q6(a) similarity- Both can contain alphanumeric data and difference- CHAR is fixed length string whereas; VARCHAR is variable length string.
    (b)In a database there are two tables Books and Issues.   (1+1+2+2=6)

Table: Books

Book_ID	Book_Name	Author_Name	Publisher	Price	Qty
B01	Math	Raman	BPB	70	20
B02	Science	Agarkar	Tata	90	15
B03	Social	Suresh	BPB	85	30
B04	Computer	Sumita	Goyal	75	7
B05	Punjabi	Gursharan	BPB	60	25
B06	English	Wordsworth	Tata	55	12

Table: Issues

Issue_ID	Book_ID	Qty_Issued
1	B01	13
2	B02	5
3	B05	21
4	B01	4

(i) Book_ID
(ii) 4
    (iii)select Books.Book_ID,Author Name,Qty issued from books, issues where
      books.book_id = issues.book_id and publisher= "BPB";

(iv) Select sum(Qty) from books group by publisher;

(c) Transaction is Logical Unit Of Work(LUW). **Atomicity** property of transaction denotes all or none.

Q7. (a) e-Governance saves time of public and govt. servants. Increase transparency and reduce corruption which is good for the health of economy.

(b) Trainer can reach to large number of students and effective teaching due to audio visual effects. Can increase his/her knowledge also. W3schhols.com, Mycbseguide.cpm

(c)

Sr. No.	Control used	Control Name
1	to select any subject and in absence of subject it can be entered	ComboBox
2	display the photograph of student	Label
3	display current date	Label
4	for entering mode of payment out of debit card, credit card, visa card	CoboBox/RadioButton