CLASS : XII

Max marks: 70   Time allowed:3Hrs

<u>General Instructions</u>   : 1. *Answer the questions after carefully reading the Questions.*
                                      2. *Marks are given against the respective questions.*

1   **Answer the following:**

   a.   Name the protocol widely used on internet for transferring files to and from a remote host.   1

   b.   Name an open standard for the following   1
     a) Office documents   b) Audio compression

   c.   What type of address is the following? Define it? To which device it is attached to?   2
   20:B9:F1:63:2F:FB

   d.   Which device should we use to segment networks into subnetworks ?   1

   e.   Which type of server act as a workstation as well as server?   1

   f.   Identify the topologies used for the following.   2

    (1) In it the nodes form a circular path for data to travel and each node is connected to two other   nodes.

    (2) Each node is connected on single transmission cable and data transmit from one end to other end.

   g.   Explain transliteration and keymap based text entry.   2

2.   **Answer the following:**

   a.   ABC public school has developed a JAVA application through which the parents are able to see their deposited fee details for their ward. What should school do so that parents / students are able to view the details shown in text field and can't modify them.   1

   b.   Which HTML tag is used to give a hyperlink to another page.   1

   c.   Which attributes of <BODY> tag are used to give background colour and background image to the webpage.   2

   d.   Explain how do…while loop is different from while loop by giving an example.   2

   e.   Write the output of the following code segment: 2

```
     int j=10,x=0,i=0;
   for(i=1;i<=4;i++)
 {  if(i%2= =0)
   x=x+(i * j);
     j=j-2;
  }
 System.out.println(x);
```

f.   Write a function in Java that takes two integer arguments and return its reminder   if the   2
     first number is an odd no and returns its quotient if it is an even no.

g.   What is the difference between HTML and XML   2

3.   Answer the following:

ABC Company has developed the following interface to enter and display data related to
Income Tax of employees.

Write the code to implement the following: 1

a.   When the Frame loads Text Fields for Income Tax, Education Tax, Surcharge and
     Total Tax Amount should be disabled.
                                                                                                   2
b.   When calculate button is clicked, Calculate IncomeTax (10% of Taxable Income),
     Education Tax (2 % of Taxable Income) Surchar(1 % of Taxable Income) and
     Total Tax Amount and display it through the textfields. If the taxable income is
     less than 100000 Income Tax, Education Tax, Surcharge are NIL.

c.   2

     When the user clicks the clear command button, the Text Fieldes EmpCode and EmpName
     should be set to blank and other TextFields should be set to zero.   1

d.
       When the user clicks the Exit command button , the application should be closed.

4.   Answer the following:

a.   Explain the use of Default clause and Foreign key while creating a table.   2

b.   Write output of the following SQL queries   2

         1.   SELECT ROUND(6.9987) ;

         2.   SELECT LEFT(CONCAT('COMPUTER ', 'TECHNOLOGY'),12);

c. Write output of the following SQL queries based on the above Course table.

2

SID	SUBJECT
1	Eng
2	Com
3	Sci
4	Hum
5	Hind

1. Select DISTINCT SUBJECT from Course;

2. Select count(SUBJECT) from Course group by SUBJECT having subject like ' % m ';

d. Differentiate between Primary key and Unique Key   2

e. Which command is used for partial ROLLBACK.   1

f. The SELECTION table has the following fields: eno, ename, age, place and party.15   2
records are stored in the table. What is its Cardinality and Degree.

g. You need to ADD the Primary key PK_ID to Itcode column in ITEM table that is already   1
defined. Which statement should you use.

5   **Answer the following:.**

a. What is an abstract class ? How is it different from interfaces.   2

b. What will be the content of jTextfields after executing the following code :   1

    1.   JtextFIeld1.setText("informatics".substr(5));

    2.   JTextFIeld2.setText(" " + Math.pow(2,3));

c. What will be the content of jTextArea1 after executing the following statement?   1
    JTextArea1.setText("1234".length( )+1+ " ");

d. Find the error in the following code and correct it. Underline each correction.   2

```
        int i,j=10;
        i=Integer.parseint(atxt.getText( ));
        if(i=0)
        {
          do while(i<j)
          {
              system.out.println(i++);
              i+=1;
          }
        }
```

e. Priya wants to receive user input through a dialog box. Which type of dialog box can she   1
use for this purpose?

6. **Answer the following:**

a. Write SQL commands for the statements (i) to (vi) and give outputs for SQL queries (v) to (vi) on the basis of the table Shop.

6x1=6

Table: Shop

No.	Shop_name	Sale	Area	Cust_percent	Rating	City
1	West side	250000	West	68.6	C	Delhi
2	Pantaloons	500000	South	81.8	A	Chennai
3	Sir's & Her's	300000	North	79.8	B	Amritsar
4	Sports king	380000	North	88.0	B	Baroda
5	Biswas stores	456000	East	92.0	A	Delhi
6	Big Bazar	290000	South	66.7	A	Kolkota

(i) To display the name of all shops which are in Area South and sale more than 300000

(ii) To display name and Customer Percentage of all the shops having cust_percentage between 77 and 90.

(iii)To display details of all the shops in ascending order of shop name.

(iv)To display the city along with sum of sale for each city.

(v) SELECT MIN(Sale) from SHOP GROUP BY Area;

(vi) SELECT Shop_name, Area FROM Shop
WHERE City NOT IN('Delhi', 'Chennai');

b. Write an SQL Query to Create the Table 'MASTER' with the following structure

2

Fields	Type	Constraint
M_ID	INTEGER	Primary Key
FIRST_NAME	VARCHAR(25)	NOT NULL
AGE	INTEGER	AGE Should be greater than 18
DESIG	VARCHAR(25)	

4

c. Given the following tables: Customer and Parts .

CUSTOMER

Cid	Name	Address	State
C001	True Wheel	550 Husker	NE
C002	Bike Spec	CPT Shrive	LA
C003	Le Shoppe	HomeTown	KS
C004	AAA Bike	10 OldTown	NE
C005	Jacks Bike	24 Eglin	FL

PARTS

Pid	Description	Price	Cid
54	Pedals	54.25	C001
42	Seats	24.50	C002
46	Tires	15.25	C001
23	Mountain Bike	350.45	C004
76	Road Bike	530.00	C005
10	Tandem	1200.00	C002

   i. How many rows and columns will be there in the Cartesian Product of these two tables .

   ii. Identify the foreign key and justify your reason.

1

1

d. Consider the following table "Employee" and "PayRoll" :

Employee

Empid	EName	Dept
111	Vimal	1
222	Vijay	3
333	Ravi	2
444	Mohit	2
555	Manisha	3

PayRoll

Empid	Basic	hra	da	Total
111	5000	1000	500	6500
222	8000	1600	800	10400
333	9000	800	400	5200
444	12000	2000	1000	13000
555	15000	3000	1500	19500

5

1	Display highest total salary of employees in each department	2
2	Display the employee id, name and total salary of employees.	2
3	Display the name and dept of employees whose basic is greater than 10000	2
4	Write the output for the following: Select ename,dept,basic from employee,payroll Where employee.empid=payroll.empid AND basic>9000;	1
5	Select empid,hra+ta as 'Total Incentives' from Payroll;	1

7. **Answer the following:**

a. How does e-business improve customer satisfaction ?   1

b. What is Back end? What is its significance?   2

c. Rahul works for a Customs Department. He wishes to create controls on a form for the
following functions. Choose appropriate controls from Text field, Label, Radio Button,
Check box, List, Combo Box, Button and write in the third column   2

S.No.	Controls Used to:
1	Enter First name
2	Select Gender
3	Choose City from a list of cities
4	Submit Form

****