Class-12th   **Maximum Marks-70**
Date:-   **Time: 3Hrs**

Answer all the questions.

Q1 (i)	Miss. Namrata a MD of Alpha Industries wants to set up his branches in the same city Ahmedabad. Her corporate office is in sarkhej, registered office in kalupur and branch office in sahibagh Ahmedabad .She is confused regarding the type of network which is required to connect his different offices located in the city and connect different computers in different offices. Suggest her the type of network and communication medium she should use.	2
(ii)	How it is easier to find faults in Star topology in comparison to Bus topology?	1
(iii)	What is an abbreviation FLOSS and PHP ?	1
(iv)	Mr. Ravi a Network administrator wants to restrict others i.e unauthorized persons from accessing his resources. Suggest him the name of hardware or software for the same?	1
(v)	How MAC address is different from IP address? Give example.	1
(vi)	Name two encodings used for Indian language Computing?	1
(vii)	Why switch is known as intelligent hub?	2
(viii)	Name the type of network formed when you connect your computer to internet.	1

Q2   (i)   Write the following code using if…else?   2

int a =1;

switch(a){

        case 1 :   System.out.println("Jan");

                    break;

        case 2 :   System.out.println("Feb");

                    break;

        case 3 :   System.out.println("March");

                    break;

        default :   System.out.println("Not a valid month number");

                    break;

        }

(ii)   Write the sample code to extract the character which is displayed in password field   1

Pwd and store it in character variable ch?

(iii)   Write the tag used to create rows and cells in a table in a web page?   1

(iv)   What will be an output of following HTML sample code ?   1

        <ol type="a" start="5">

        Surat

        Jamnagar

junagadh

(v) (a) Which of the following is correct declaration of xml document?   1

    i. <? XML version="6.2" encoding="utf-4" ?>
   ii. <? xml version="1.6" encoding="utf-6" ?>
  iii. <? xml version="1.0" encoding="UTF-8" ?>
  iv. <? xml version="8.0" encoding="utf-8" ?>

(b) How XML is different from HTML?   1

(vi) Write the output of the following code   2

```
 int f=1,i=2;
 do
 {
 f *= i;
 }while(++i<5);
        System.out.println(""+f);
```

(vii) Write any two points of difference between entry controlled and exit controlled loop?   1

Q3 (i) What is the difference between Alternate Key and Candidate Key?   1

(ii) Mr Rajesh wants to add a column "Destination" of data type varchar and size 30 in an existing table FLIGHT. Suggest him by writing the command for the same?   1

(iii) A numeric column Average in Marks table contains 1234.7689. Write a command to remove 2 digits after decimal places?   1

(iv) Aanchal wants to replace all NULLS in the column COMM of table EMPL with 100. Write the command in MySQL that solves her problem.   1

(v) While using the LIKE clause, which wildcard symbol is used to represent one, none or more characters.   1

(vi) Mrs. Jinal does not want to display duplicate city from the table Flight.
Help her by writing the correct query statement in MySQL.   1

(vii) Declare and define a method total() which accept price and quantity as parameter and returns total price which is equal to price * qty?   2

(viii) Mr. Ram created two tables Item and Sales which contain icode(a column) as primary key in Item table but does not know how to define foreign key on Icode of Sales table. Suggest him the complete command to define foreign key on the column Icode of Sales table which refers to Icode of Item table.   2

Q4 (i) What will be an output when following Commands will be executed in MySql: 2

A table Book contains the following records:

Books

Bookid	Bookname	Price
101	Java	200
105	C++	300
106	C	400

```
Begin;
Insert into Books values(505,"PHP",900);
Delete from Books where Bookid=105;
Rollback;
Insert into Books alues(605,"ASP",500);
Update Books set price=price+60
where Bookname="C";
Select * from Books;
Commit;
```

(ii) What is method overloading? 1

(iii) What is the difference between a class and an object? 1

(iv) What will be an output of the following code snippet written using java: 2

```
StringBuffer string=new StringBuffer("State");
StringBuffer title=new StringBuffer( );
title.append(string);
String string1="Manipur";
string1.concat("  "+title.insert(0, "Green "));
System.out.println(""+string1);
```

(v) Rewrite the following code segment using for… loop without effecting the output of the code: 2

```
int a=0,j ;
while(a!=20)
 {
     j+=a;
     if(a%5==0)
     {
         a+=5;
     }
     else
     {
         a+=1;
 }
     }   a+=2;
```

(vi) Define the term abstraction and encapsulation? 2

(vii) Given below the form for Room Rent calculator:

Depending upon choice of Room its rent should be displayed in their text field.

(a) Write sample code for calculate button to display discount as per rate given in the table and calculate total amount on checkout and display it in its textfield. 3

(FinalRoomRent = (Rent-discount)*duration_in_days)

Room	Customer Type	Discount
Super Delux	Indian	2%
Delux	NRI	3.5%
Semi Delux	Foreigners	5%

(b) Write sample code for clear button to clear all entries and selection. 1

(c) Name the method to: 1

(i) To disable radiobutton r1.

(ii) To make textfield t1 uneditable.

Q5 (a) Write Query in MySql Display first three characters of the Name "Reliance Green" . 1

(b) Distinguish between single row and aggregate functions of MySQL? Write one example of each. 2

(c) Consider the Table **PROJECT _WORK** given below. Write command in MySql for (a) to (e) and output for (f) and (g).

Table PROJECT_WORK :

P_Id	Name	P_Size	St_Date	E_Date	cost
1001	Emp-MMS	Large	2016-04-02	2017-12-02	70000
1002	Hotel-	Medium	2014-05-01	2015-01-02	55000

	MMS				
1003	Sales-MMS	Short	2015-07-09	2017-01-02	76000
1004	Emp-MMS	Large	2014-04-02	2016-12-07	87000
1005	Sales-MMS	Short	2015-07-09	2016-11-02	98000

   i. To display sum of cost of each project_work as per their size.   1

   ii. To display name each project_work whose name does not contain t as any character in their name.   1

   iii. To display P_Id,P_Name and P_size of each project in order of their cost.   1

   iv. Count the name of different project names.   1

   v. To display the detail of all project which ends in 2017.   1

   vi. Select substr(Name,4,length(P_size)) from Project_work;   1

   vii. Select st_date+10 from Project_work;   1

Q6   (a) Write MySQL command to create the table "Passenger" with the following structures and constraints.   2

Table: Passenger

Column_Name	Data_Type(Size)	Constraint
P_Id	Int(20)	Primary Key
P_Name	Varchar(20)	
Gender	Varchar	Default male
Age	Int	
Date_of_journey	Date	

(b) What is an use of Drop and Delete commands in MySQL?   1

(c)   Consider the table MOBILE AND CUSTOMER given below:

Mobile

SetCode	SetName	TouchScreen	Cost
S2	Samsung 3G	Y	12000
S4	Samsung 2G	N	15000
S7	Samsung 4G	Y	22000

Customer

CustNo	SetNo	CustAddress
1	S2	Rajkot
2	S4	Ahmedabad
3	S4	Kolkata
4	S7	Ahmedabad
5	S2	Rajkot

With reference to these tables, write commands in SQL for (i) to (iii) to:

(i)   Display the CustNo,CustAddress and corresponding SetName for each customer.   2

(ii)   Display the detail of each customer who uses Samsung mobile.   2

(iii)   Display the cross join of the table and also specify degree and cardinality of   2
        output.

(d)   How WHERE clause is different from HAVING clause in MySQL?   1

Q7   (a)   How E-Governance benefited a common man?   2

       (b)   Why there is high dropout rate in E-Learning Process?   1

       (c)   Identify the type of control used for the following works: 2

Works	Control Name
To select many items from multiple items	
To display a message Pass or Fail	
To enter encrypted text	
To select an option from multiple option.	