



INFOTECH Computer Education

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- Q1. (a) Write the two advantages and two disadvantages of the following topologies in network (i) Bus Topologies (ii) Star Topologies (2)
- (b) Explain in brief of networking needs and goals. (2)
- (c) Name two encodings used for Indian Language computing? (2)
- (d) Define the following terms: (2)
- (i) Hub (ii) Switch
- (e) What is free software? How is it different from Open source Software? (2)
- Q2. (a) What is the name of event listener interface for action events? (1)
- (b) What does getPassword() on a password field return? (1)
- (i) a string (ii) an integer (iii) a character array
- (c) What is inheritance? Name its various forms. (2)
- (d) What is a markup language? Explain with an example (2)
- (e) What is MySQL Client? (2)
- (f) What is a Class and its constructor? (2)
- Q3. (a) Define the ACID Property in MySQL? (2)
- (b) Write brief notes on any four table Constraints in MySQL? (2)
- (c) Differentiate between CHAR and VARCHAR datatypes? (2)
- (d) What is the importance of primary key in a table? Explain with a suitable example? (2)
- (e) Explain the Foreign key in table with example (2)

Q4. Read the following case study and answer the questions that follow:

The shop a save store has developed the following data entry screen for its operations. The store offers three different types of membership discount schemes for its regular customers. Platinum members get a discount of 10% on all their purchases, gold members get 5% and Silver members get 3% discount.

Shop n Save

Product	<input type="text"/>	Premium Membe
Quantity	<input type="text"/>	<input checked="" type="radio"/> Platinum
Rate	<input type="text"/>	<input type="radio"/> Gold
Amount	<input type="text"/>	<input type="radio"/> Silver
Discount	<input type="text"/>	<input type="button" value="Calculate"/>
Net Amount	<input type="text"/>	<input type="button" value="Exit"/>

- (a) Write the Code to disable the text fields AmountTF,DiscountTF And NetTF. (2)
- (b) Write the code for CalcBTN to calculate the amount, discount and net amount as per the given description and conditions (3)
- (c) Write the code to remove the decimal part from the text field NetTF so that the net amount contains only the integer portion in rupees. Where(in which event handler) would you place this code to have its impact? (2)
- (d) Write the code for ExitBTN to close the application, but before the application is closed it should check the net amount and if the net amount >10000 the membership of the customer should be upgraded and displayed. For example if the customer already has silver membership it should be upgraded to gold and he should be informed of the same using a message box. (3)

Q5 (a). Given the following code fragment : (2)

```

If(a==0)
System.out.println("zero");
If(a==1)
System.out.println("one");
If(a==2)
System.out.println("two");
If(a==3)
System.out.println("three");

```

Write an alternative code (Using if) that saves on number of comparisons.

(b). What will be the output produced by following code fragment? (1)

```

Float x=9;
Float y=5;
Int z=(int)(x/y);
Switch(z)
{
Case1:x=x+2;
Case2: x=x+3;
Default:x =x+1;
}
System.out.println("value of x:"+x);

```

(c).Find out errors if any: (2)

```

M=1;
N=0;

```

```

For(;m+n<19;++n)
System.out.println("hello");
M=m+10;

```

(d). Predict the output of the following code fragments: (1)

```

Int l,j,n;
N=0;i=1;
Do
{
N++;
l++;
}
While(i<=5);

```

(e). Write HTML code to produce these controls (1)

- (i) a text box with 10 rows and 30 columns
- (ii) a password text box

- (f) (i) What do you understand by a well-formed document? (1)
- (ii) Explain term function overloading along with an example (2)

Q6. (a) What is a datatype ? Name some datatypes used in MYSQL ? (2)

(b) What are three transaction control statements in MySQL? Give example (2)

(c) Consider the table HOSPITAL given below. Write command in SQL for Following questions- (4)

- (i) To show all information about the patients of cardiology department.
- (ii) To list the names of female patients who are in orthopedic department.
- (iii) To display Patient's name, charges ,age for only male patients
- (iv) To count the number of patients with age>30.

NO.	NAME	Age	Department	Dateofadm	Charges	Sex
1	Tarun	12	Surgery	01/01/98	300	M
2	Zubin	36	Orthopedic	12/01/98	250	F
3	Ankita	16	Orthopedic	24/02/98	300	F

d) What is a join? Explain with a suitable query? (2)

Q7.(a) Write an SQL command for creating a table student who structures given below (1)

Field Name	Data type	Size	Constraint
Rno	Number	3	Primary key
Class	Varchar	5	Not Null
Percentage	Number	5,2	Not Null

(b) Given the following teacher relation : Write SQL commands for question.

Teacher Table

No.	Name	Department	DateofJoining	Salary	Sex
1	Raja	Computer	21/5/98	8000	M
2	Sangeeta	History	21/5/97	9000	F
3	Ritu	Sociology	29/8/98	8000	F

Question c,d,e based on teacher table

(b) show the list of Computer and history department. (1)

(c) To list the name of female in History department. (1)

(d) To list all names of teacher with date of admission in ascending order. (1)

(e) To display Teachers name, department and salary of female teachers. (1)

(F) How is a back-end linked to a database and a server? (1)

(G) How has e-governance benefited the common man? (2)

(h) What control would you suggest for following types of inputs? (2)

(i) Typed Text (single line)

(ii) Multiple items from a group of names

(iii) Typed text which should remain hidden