

**Instructions:**

**I. All questions are compulsory.**

**II. Answer the questions after carefully reading text.**

- 1 (a) What is the difference between Address bus and Data bus? (2)
- (b) What do you mean by BIOS? (2)
- (c) Compare Compiler and Interpreter (2)
- (d) Explain IDE? (1)
- (e) What is firewall? (1)
- (f) Write down four major functions of operating system (2)
- 2 (a) Name an invisible component in JAVA IDE? (1)
- (b) Explain (a) Syntax error (b) Logical error (with one example each) (2)
- (c) Which window helps to change the attributes of a selected component? (1)
- (d) Which method is used to change the display text of a component at runtime? (1)
- (e) What is the purpose of **default** in switch? (1)
- (f) Rewrite using **for** loop. (2)
- ```
int x=10,y=20,add=0;
while(x<=y)
{
add+=x;
System.out.println(" "+x);
x+=2;
}
System.out.println(add);
```
- (g) Write the java code that takes the cost price of an item in a textfield cpTF and profit percent in a textfield percTF, and calculates its selling price (using the formula  $sp=cp+cp*profitpercent$ ) and displays it in a textfield spTF. (2)
- 3 (a) What will be the value of jTF2 after the execution of the following code. (1)
- ```
int Num=6;
Num=Num+1;
if(Num>5)
jTF2.setText(Integer.toString(Num));
else
jTF2.setText(Integer.toString(Num+5));
```
- (b) What will be the contents of JTextArea1? (1)
- ```
JTextArea1.setText("God\tBless\nYou");
```
- (c) Write a suitable java statement to declare a string variable City and initialize it with value as "Mumbai". (1)

- (d) Name java methods for the following:  
 (a) To make a textfield TF1 invisible  
 (b) To check whether a radio button oddRBTN selected or not (2)  
 (e) What is the main difference between Combo Box and List Box? (2)  
 (f) The following code has some errors. Rewrite the correct code underlining the corrections made. (2)

```
int sum=0;count=0;
int i;
for(i==0;i<10;i++)
{
sum+=i;
count++;
}
```

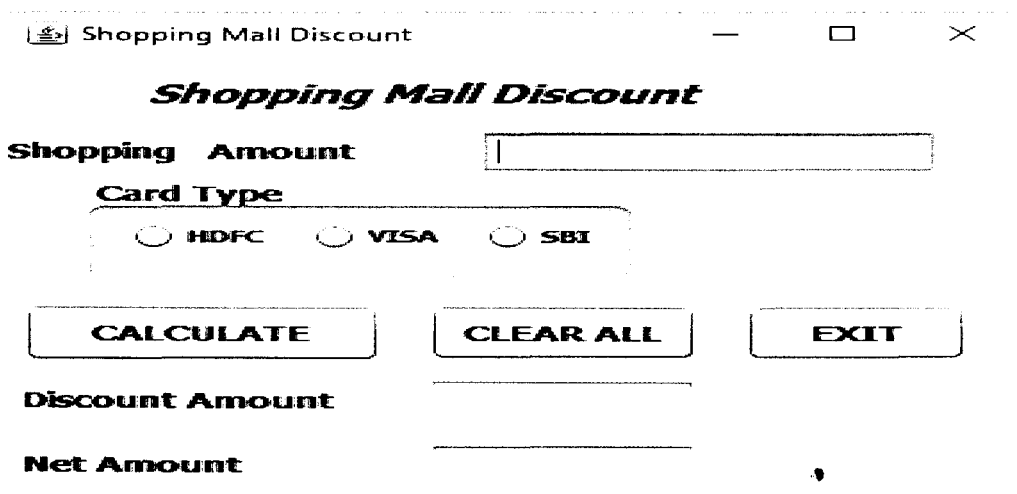
- 4 (a) What will be the value of **f** and **i** after the execution of following code?. (2)

```
int f=1,i=2;
do
{
f*=i;
}while(++i<5);
TF2.setText(""+f);
```

- (b) Write equivalent code for the following using switch (2)

```
if(choice=='e')
east++;
else if(choice=='w')
west++;
else if(choice=='s')
south++;
else if(choice=='n')
north++;
else
JOptionPane.showMessageDialog(null,"Enter a code");
```

- (c) Consider the following screen shot and answer the questions given below.



| Variable Name | Control Type | Remarks                       |
|---------------|--------------|-------------------------------|
| amtTF         | JTextField   | To enter Shopping amount      |
| discTF        | JTextField   | To display discount           |
| netTF         | JTextField   | To display net amount         |
| hdfcRB        | JRadiobutton | For HDFC account              |
| visaRB        | JRadiobutton | For VISA                      |
| sbiRB         | JRadiobutton | For SBI                       |
| clearBtn      | JButton      | For Clearing the textfields   |
| calcBtn       | JButton      | To calculate discount and net |
| exitBtn       | JButton      | To exit the application       |

- (i) To calculate and display discount and netamount in the respective textfields on the click of calcBtn. (5)

**Discount Criteria**

| Card Type | Discount Rate |
|-----------|---------------|
| HDFC      | 12%           |
| VISA      | 10%           |
| SBI       | 8%            |

- (ii) To exit from the application (1)

- (d) How many times the following loop be executed? (1)

```
int P,Q=5;
for (P=8;P<=12;P++)
{
Q+=P;
}
```

- 5 (a) Ms Meera wants to remove the entire contents of a table **Class** along with its structure to release the storage space. Write MySql statement for that. (1)

- (b) Help Divya to run the following query by removing errors (1)

```
UPDATE table Class per=per+2 where Grade='A';
```

- (c) Differentiate between Alternate key and Candidate key (2)

- (d) What is the output of following queries (2)

- (i) Select SUBSTR('HARD WORK',6,4);  
(ii) Select LENGHT('ALL THE BEST');

- (e) While creating the table **FITNESS** last week, Ms Sharma forgot to include the column **AREACODE** .Now write a command to include the column with **VARCHAR** datatype and 30 size into **FITNESS** table (1)

- (f) Answer the given queries based on the following table **SALES**

| Name    | Bonus |
|---------|-------|
| Anil    | 83    |
| Vinil   | 98    |
| Karthik | 65    |
| Sunil   | 42    |

- (i) Select Name from SALES where Bonus IN(83,42); (2)

- (ii) Select \* from SALES where Name not like '%ni%';

- (g) Name a (a) date function that returns a string (b) a string function that returns a number (1)

6 (a) Answer the queries based on the table **PRODUCT**

**PRODUCT**

| CODE | NAME                | PRICE | MANUFACTURER |
|------|---------------------|-------|--------------|
| 1    | Treadmill           | 21000 | Coscore      |
| 2    | Bike                | 20000 | Aone         |
| 3    | Multi gym           | 14000 | Reliable     |
| 4    | Massage Chair       | 5500  | Regrosene    |
| 5    | Belly vibrator belt | 6500  | Ambaway      |
| 6    | Treadmill           | 22000 | Panda        |

- (i) To display the details of all products with price more than 20000. (6)
- (ii) To display all the productnames of the manufacturer Coscore concatenated with price.
- (iii) To add a new row with details (7,"vibro excerciser",28000,"XYZ")
- (iv) To change the price of all Treadmill to 50000Rs.
- (v) To display whole table in descending order of price
- (vi) To show the details of all products whose name starts with M. (2)

**Write the output of following queries based on the table PRODUCT**

- (vii) Select CODE,NAME from Product where price NOT BETWEEN 10000 AND 25000;
- (viii) Select LEFT(Manufacturer,3) from Product where Name='Treadmill';

- (b) Write the output. (2)  
 Select TRUNCATE(1.58,1);  
 Select YEAR('2016-01-17');

7 (a) Create the table **REGISTER** with the following attributes (2)

| Column Name  | Data Type   |
|--------------|-------------|
| ENO          | Integer     |
| ENAME        | VARCHAR(40) |
| AGE          | Integer     |
| Date Of Join | Date        |

- (b) Suggest a suitable primary key for **REGISTER** table (1)
- (c) Write a query to change the datatype of the column ENO to VARCHAR of size 10 (1)
- (d) Write a query to remove the row having ENAME as 'HENKEL'. (1)

8 (a) What is E-Business? (1)

- (b) Define E-learning? Name any two websites of E-Learning? (2)
- (c) Write short notes on E-Governance. (2)

**GOOD LUCK**