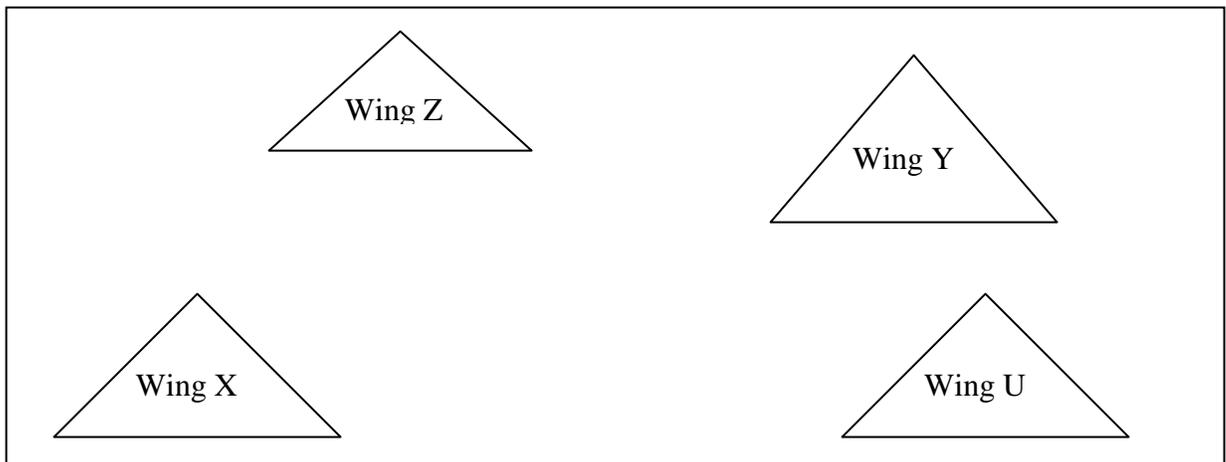


**Sample Paper – 2011
Class – XII
Subject – Informatics Practices**

1. Answer the following questions:
- (a) Define: i. IP address ii. Modem 2
 - (b) What is Denial-of-service? 2
 - (c) Write the purpose of the following: i. Infrared ii. Microwave 2
 - (d) The IIBM has to set up its new branch at Manipur for its office and web based activities. It has 4 Wings of buildings as shown in the diagram:



Center to center distances between various blocks

Wing X to Wing Z	40m
Wing Z to Wing Y	60m
Wing Y to Wing X	135m
Wing Y to Wing U	70m
Wing X to Wing U	165m
Wing Z to Wing U	80m

Number of Computers

Wing X	50
Wing Z	130
Wing Y	40
Wing U	15

- (i) Suggest a most suitable cable layout of connections between the Wings and topology. 1
- (ii) Suggest the most suitable place (i.e. Wing) to house the server of this organization with a suitable reason, with justification. 1
- (iii) Suggest the placement of the following devices with justification: 1
 - (a) Repeater
 - (b) Hub/Switch

(iv) The organization is planning to link its head office situated in Delhi with the offices at Manipur. Suggest an economic way to connect it; the company is ready to compromise on the speed of connectivity. Just your answer. 1

2. Answer the following questions:

- (a) Expand the following terms (i) FSF (ii) W3C 2
- (b) What are the following software used for (i) Linux (ii) Apache Server 2
- (c) What is font ? Give two examples of font. 2
- (d) Compare – phonetic text entry and keymap based text entry. 2
- (e) What is Ogg Vorbis? 2

3. Answer the following questions:

2×10

- (a) What are iteration statements? Give examples of iteration statements which are supported by java.
- (b) Explain conditional operator(?) of java with example.
- (c) Explain the use of break statement with example.
- (d) What is container control? Give example.
- (e) Name two common properties which are available in both Text Area and Check Box of NetBaens IDE.
- (f) What do mean by return statement of method ? Give example.
- (g) What is Constructor? Explain with example.
- (h) What are actual and formal parameter of java method? Explain with example.
- (i) Define scope and lifetime of a variable.
- (j) Write the purpose of void in a method definition.

4. Answer the following questions:

(a) Rewrite the following code using IF statement without effecting the output of the code: 2

```
int a=1;
select case (a)
{
case 1:
    System.out.print("Sunday");
    break;
case 2 to 6:
    System.out.print("WeekDay");
    break;
case 7:
    System.out.print("Nearing Weekend");
    break;
default : System.out.print("Wrong Number");
}
```

(b) How many times are the following loop executed? 2

```
int num=5;
do
{
    System.out.println(num+1);
    num--;
} while (num !=0);
```

(c) Find out the errors, if any 2

```
int i=0;x=0;
while ( i < 10 )
{
    if (i % 2 = 0)
    {
        x == x + i ;
        System.out.print(x + 1);
    }
    i ++;
}
```

(d) Change the following code using For loop without effecting the out put:

2

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

(e) Find the output of the following code:

2

```
double Number = 7583241;
int Firsr = 0, Second = 0, R;
do
{
    R = Number % 10;
    if ( R % 2 == 0 )
        First += R;
    else
        Second += R;
    Number = Number / 10;
} while (Number > 0);
System.out.print(First – Second );
```

5. Write a java method that takes an integer N as input parameter and displays the sum of all the digits in the number. 4

6. Design a class to represent a bank account. Include the following members: 6

Data Members:

- Name of the depositor
- Account number
- Type of account(Savings/Current)
- Balance amount in the account(Minimum balance is Rs.500.00)

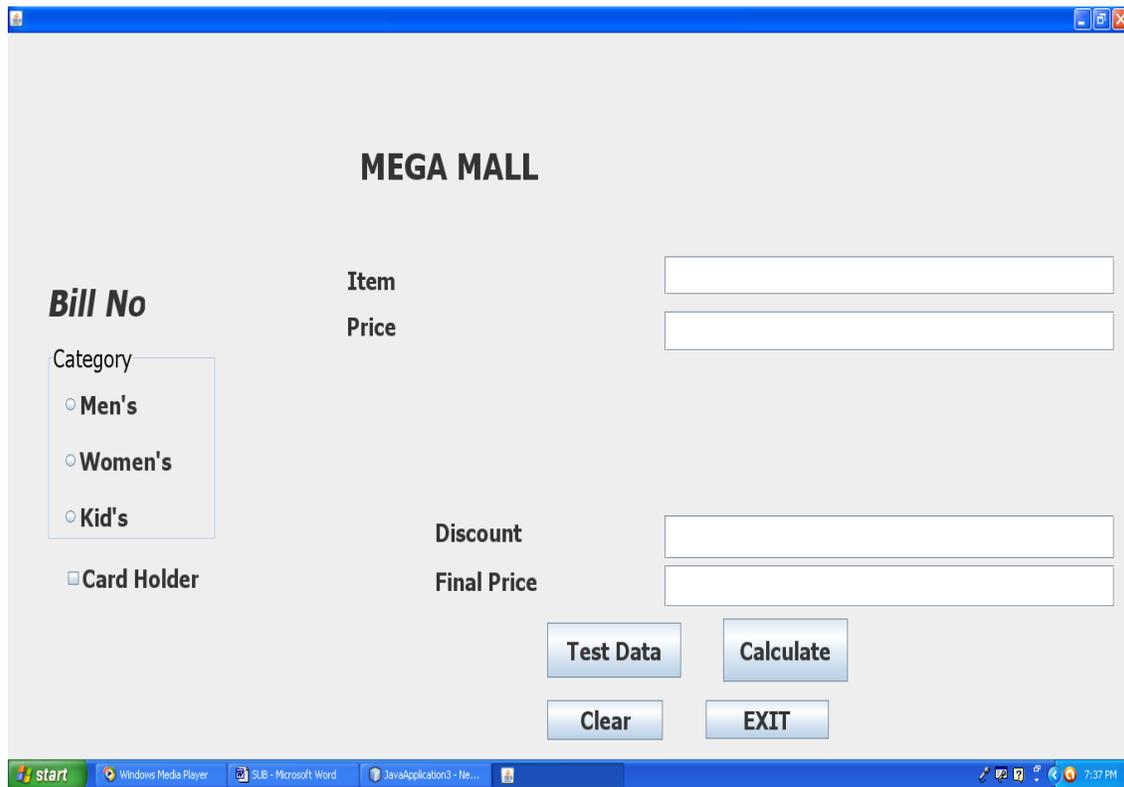
Methods:

- To read account number, Depositor name, Type of account

- To deposit an amount (Deposited amount should be added with it)
 - To withdraw an amount after checking balance(Minimum balance must be Rs.500.00)
 - To display the balance
- (Assume necessary interface (with NetBeans IDE) for above program)

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

Mr.Basu of MEGA MALL decided to computerize the billing department. The accounts manager at MEGA MALL is creating the billing software to generate the bill during the sale period. A new bill is generated for each item sold. The discount is given based on the item category. An additional discount of 5% is given to the MEGA MALL card holders. The following is data entry screen used at the MEGA MALL:



The list swing controls for the above is as follows:

Object Type	Object Name	Description
JFrame	MEGA MALL	The main form
JPanel	Category	To display different items category
JRadioButtons	MenRB	To select Men's Category
	WomenRB	To select Women's Category
	KidRB	To select Kid's Category
JButtons	CalJB	To calculate discount and final price
	ClearJB	To clear all JTextFields
	ExitJB	To exit from the application
	TestJB	To test data validity
JTextFields	txtItem	To enter item name
	txtPrice	To enter item price

	txtDiscount	To display discount
	txtFP	To final price
JCheckBox	CHCheck	To check card holders

(a) Write the code for the ClearJB Radio button to clear all the JTextFields. 2

(b) Write the code for the TestJB button to ensure that the user does not enter a negative or a zero value in txtItem JTextField. If a negative or a zero value is entered that txtItem should be made blank and a warning message should be displayed through a JOptionPane. 3

(c) Write the code for the CalJB button to display the discount and final price in the txtDiscount and txtFP JTextFields respectively. Note that final price is calculated as (price – discount) and the discount is calculated based on the category and price according to the following table. Also remember to give an additional 5% discount for membership card holders i.e. if the CHCheck JCheckBox is checked. 4

Category	Price	Discount
Men's	<10000	30%
	>=10000	50%
Women's	<8000	40%
	>=8000	50%
Kid's	<5000	20%
	>=5000	30%

(d) Write the code for ExitJB button to exit from the application.

1

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