

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

Time : 3 hours

Max Marks:70

**SET-I**

General Instructions

1. This question paper is divided into three sections.
2. Section-A consists 35 marks.
3. Section-B and Section-C are of 20 marks each.
4. Answer the questions after carefully reading the text.

**SECTION –A**

Q1 Answer the following questions:

- (a) Expand the following terms: 2  
       (i) ODF      (ii) GPL
- (b) What are the following software used for? 2  
       (i)Python   (ii) Mozilla Firefox
- (c) Compare circular and star topologies. 2
- (d) What are the factors that must be considered before making a choice for a topology? 2
- (e) APS Secunderabad is setting up the network between its different wings. There are 4 wings named as SENIOR(S),JUNIORS(J),ADMIN(A) and HOSTEL(H).

Distance between various computers	
Wing A to Wing S	100 m
Wing A to Wing J	200 m

Number Of Computers	
Wing A	10
Wing S	200

Wing A to Wing H	400 m
Wing S to Wing J	300 m
Wing S to Wing H	100 m
Wing J to Wing H	450 m

Wing J	100
Wing H	50

- (i) Suggest a suitable topology for networking computer of all the wings. 1
- (ii) Suggest the placement of Switch/hub in the network. 1
- (iii) Mention an economic technology to provide internet accessibility to all the wings. 1
- (f) What are the following ODF file extensions meant for? 2  
  - (i) odb (ii) odg (iii) odp (iv) ods
- (g) Recommend a software for an organization or sector where the performance is the factor of utmost importance, such as military. 1
- (h) Name two encodings used for Indian Language Computing. 1

Q2 Answer the following questions

- (a) What is E R modelling? Identify the entities ,attributes and relationship in the following scenario: 3  

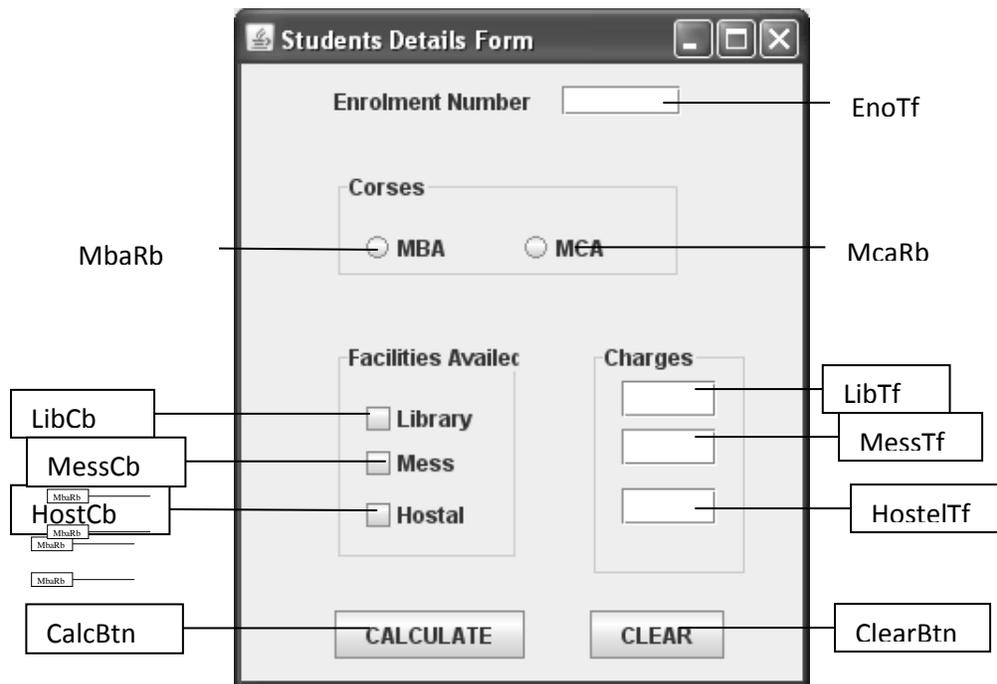
“A person can be Male or Female.”
- (b) What benefits does an e-governance offer to the common man ? 2
- (c) Define the following terms. 2  
  - (i) Multi –valued Attribute (ii) DDL
- (d) What controls would you suggest for following types of inputs ? 1  
  - (i) Typed text which should remain hidden (ii) Multiple choices from a set.

Q3 Answer the following questions

- |     |  |   |
|-----|--|---|
| (a) | How can you make the connection?   | 2 |
| (b) | How does JDBC different from ODBC ?  | 1 |
| (c) | What is an iterative statement ? Name any two iterative statements provided in JAVA. | 2 |
| (d) | How is ordinary compilation process different from Java compilation ?                | 1 |
| (e) | What is mean by implicit and explicit type conversion ?                              | 1 |
| (f) | Can you name the java classes that implement text field, password field ?            | 1 |
| (g) | What is a combo box ? When would you prefer a combo box over a list?                 | 1 |
| (h) | Write code to obtain list of selected items from a list namely List1.                | 1 |
| (i) | How are protected members different private members of a class                       | 1 |
| (j) | What are the actual and formal parameters of a method?                               | 1 |

**SECTION – B**

Q4 Well Tech Institute offers two post graduate courses, one in computers and one in management. The students can avail certain optional facilities. The basic interface for accepting the details of facilities availed by a student is as follows



Write the code and the event procedures for incorporating the following functionality:

- (a) The library facility should be selected by default. And the default course choice should be computers course. 1
- (b) When user clicks clear button all the text fields should be cleared. 1
- (c) Whenever user selects the HOSTEL facility , the MESS facility should get selected automatically , which the user can deselect later if desired. 2
- (d) Given that the charges for library , mess and hostel are RS 500, RS 1500 and Rs 2000 respectively per month , write a method calculate() that calculates and displays the charges per semester, for the facilities . This method should be called when user clicks Calculate button . 4
- (e) Make sure that Enrolment Number entered is non negative and non zero value. If it is not give an appropriate message. 2

Q5 Answer the following questions.

(a) Find out the output:

(i) What will the function compute(15,6) return? 2

```

Int compute(int x, int y)
{//Assuming x>=0 and y>=0
If(x>=y)
{ x=x-y;
return compute(x,y) ; }
else
{ return x;
}}

```

(ii) int x,y; 2

```

for(x=1;x<=4;x++)
{
for(y=1; y<=4;y++){
System.out.print(""+x);
}
System.out.println();
}

```

(b) Find the errors from the following code segments and rewrite the corrected code underling the correction made:

(i) Class one{ 2

```

Private int count;

}

```

```
Class two{  
    Public static void main (String args[]){  
        one ob = new one();  
        ob.count=10;}
```

(ii) Switch(x) { 2

```
    Case 1 :  
        n1 =10 ;  
        n2 =20 ;  
    Case 2 :  
        n3 =30 ;  
        break;  
        n1 =40 ;  
    }
```

(c) Rewrite following while loop into a for loop 2

```
int s=0;  
while(s<=13){  
    if (s%2==2)  
    {  
        System.out.println("color code red");  
    }  
    else{  
        System.out.println("color code blue");  
    } System.out.println("New color code ");  
    s=s+1; }
```

**SECTION –C**

Q6 Answer the following questions.

- (a) An application counts the number of vowels in a string. Write the suitable code under the command button countBtn to achieve this goal. 2
- (b) A class Electbill contains consumer details and another class Bill calculates the monthly electricity bill of a consumer.

Details of the two classes are given below:

Class name : Electbill 2

Data members/Instance variable :

cno : consumer number

name : consumer name

add : consumer address

Member functions :

Electbill(...) : Parameterised constructor to assign values to consumer number, consumer name and address

void display() : Display consumers details

Class name :Bill

Data members/Instance variable : 2

n : integer variable to store number of the units consumed

Member functions :

Bill(...) : Parameterised constructor to assign values to data members

void calculate() :Calculate the monthly bill of consumer according to following slabs and it should also display the consumers 4

details and total amount to be paid.

Number of units consumed	Rate
1 - 100	Rs 500/-rental charges only
101 - 200	Rs 1.00 per call + rental charges
201 - 300	Rs 1.20 per call + rental charges
Above 300	Rs 1.50 per call + rental charges

Specify the class Electbill giving details of constructor and member function void display().Using the concept of Inheritance specify the class Bill giving details of constructor and member function void calculate()

- (c) Write a function in Java to accept a number in text field and display a message “Adult” if the number entered by the user is more than 20 2
- (d) Write a Student class with following specifications: 3
- (i) Two private variables : first name , last name .
  - (ii) Constructor with two arguments.
  - (iii)Void method print() to print first +last name.

**Paper Submitted by**

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