

ESC101 : Fundamental of computing

Quiz 1(A)

25 September, 2008

Name :

Roll no :

Section:

Duration : 15 minutes

Question 1 Fill in the blanks the following method IsNotPrime whose parameter is a positive integer of type long, and it returns true if the number is not prime, and returns false if the number is prime.

```
public static _____ IsNotPrime(_____ n)
{
    _____ t = _____ ;

    boolean flag = false ;

    while(t*t _____ n && _____)
    {
        if(_____) flag = _____;

        _____;
    }
    if(_____) return false;

    else return true;
}
```

1. We want to create a class Box. The attributes of a box are its length breadth and width. It should have two constructors :

Box(double x) : should construct a Box with length, breadth and width equal to x.

Box(double x, double y, double z) : to construct a box with length x, breadth y, and width z.

Note : you may assume that this constructor is called with appropriate arguments such that the resulting box has length greater than or equal to both its breadth as well as its width.

You have to design a method Area() which returns the surface area of the current box. You also want to design the following method : CanbeEnclosedBy(Box B) which should return true if the current box can be enclosed by box B completely. Please fill in the blanks the following description of class.

You have to ensure that once a Box is created it should be possible to change its length, breadth and width by some method in any class to which class Box is accessible.

```
public class Box
{
    _____ double length;

    _____ double breadth;

    _____ double width;

    public Box(double x) {_____}

    public Box(double x, double y, double z)
    {_____}

    public double Area() {_____}

    public boolean CanbeEnclosedBy(Box B)
    {
        if(_____) return true;

        else return false;
    }
}
```