

General Sir John Kotelawala Defence University Faculty of Computing Department of Computer Science OOP –Lab3- Classes and Objects 2

1. Create a class called Time that includes three instance variables: hour (int), minute (int) and second (int). Provide following constructors to initializes the three instance variables.

• No-argument constructor: Initializes each instance variable to zero. •

Constructor: hour supplied, minute and second defaulted to 0. •

Constructor: hour and minute supplied, second defaulted to 0. •

Constructor: hour, minute and second supplied.

• Constructor: Another Time2 object supplied.

- 2. Create a class called Circle that includes two instance variables: radius (double) and color (String). Your class should have following constructors to initializes the two instance variables.
 - A default constructor with no argument with default value of 1.0 and "red", respectively.
 - A constructor which takes a double argument for radius.
 - A constructor which takes a String argument for color.
- 3. A class called MyPoint, which models a 2D point with x and y coordinates. It contains two instance variables x (int) and y (int).
 - A default constructor that construct a point at the default location of (0,

0).

- A overloaded constructor that constructs a point with the given x and y coordinates.
- A toString () method that display the point in the format "(x, y)". A method called distance (int x, int y) that returns the distance from this point to another point at the given (x, y) coordinates.