

CS 1713 Diagnostic Quiz on array representation

- 1) Draw an accurate schematic diagram of the program variables showing the execution of the program.

```
char x;  
char y;  
char z;  
String w = "ABCDEFGH";  
String[] list = new String[3];  
list[0] = "uvw";  
list[1] = w;  
list[2] = list[0];  
x = list[2].charAt(1);  
list[2] = w.substring(3);  
y = list[2].charAt(1);  
z = list[0].charAt(1);
```

- 2) Draw an accurate schematic diagram of the program variables showing the execution of the program. Assume that the Rectangle class has been appropriately defined with a constructor that has the width and length as parameters in this order.

```
double x = 2;
double y = 5;
Rectangle r1;
Rectangle r2;
Rectangle r3;
Rectangle[] z;
Rectangle[] w;
r1 = new Rectangle(x,y);
r2 = new Rectangle(x,y);
r3 = new Rectangle(10,20);
z = new Rectangle[2];
z[0] = r1;
z[1] = r2;
w = z;
x = x + 1;
y = y + 2;
r2.setWidth(x);
w[1] = r3;
z[1].setWidth(30);
```

(OVER)