

ECET 3810 – Practice Problem Set 1

1. Referring to the following segment of code, write the lines of code necessary to create a new instance of Clock called “alarm” that’s 2-inches wide by 2-inches high and has an analog format and yellow background. After creating “alarm,” immediately change its background color to blue.

```
class Clock {
private int width, height;
private String clockType, bgColor;
public Clock(int wInch, int hInch, String clockFormat, String background) {
width = wInch;
height = hInch;
clockType = clockFormat;
bgColor = background;
}
public void changeBackground(String newColor) {
bgColor = newColor;
}
}
```

```
Clock alarm = new Clock(2,2,"analog","yellow");  
Alarm.changeBackground("blue");
```

2. Write down the output of the following segment of code.

```
int[] number = {3, 6, 7, 10, 12, 18, 22, 23};
int i = 0;
for ( i=1; i < number.length; i++) {
number[i] = number[i] % 3;
System.out.println(number[i]);
}
```

0
1
1
0
0
1
2

Note: the for-loop starts at i=1, not i=0.

3. Write the value for “n” after each compare function is executed.

```
n = “4”.compareTo(“3”);           // 1
n = “zoo”.compareTo(“MOO”);       // positive number
n = “he”.compareTo(“INSECT”);     // positive number
n = “bee”.compareTo(“bee”);       // 0
```

4. Write down three differences between the server sockets and regular sockets.

- i) Class name**
- ii) ServerSocket waits for request from client**
- iii) Client socket (Socket) requires port number and IP address of server**

5. Explain why the following try-catch block is used and when the exception might occur. Assume “inField” and “errorField” have been previously declared.

```
String line;
try {
while ((input = inField.getText() ) != null) {
// process user input
}
}
catch (IOException e) {
errorField.setText(“Error reading input”);
}
```

The input device might not be present, and, therefore, cannot be connected via a reader object. Or access permissions are insufficient.