

1. (2%) Is "status" a good boolean variable name? Why or why not?

Good because the boolean this variable contains answers the question what is the status.

2. (2%) Given the following Java code, what will print to the screen?

```
int foodLeft = 0;
int waterLeft = 4;
int daysWithoutFood = 12;
int daysWithoutWater = 0;
int numPeopleAlive = 3;

if( (foodLeft == 0 && daysWithoutFood > 14) || (waterLeft == 0 && daysWithoutWater > 3) ||
(numPeopleAlive == 0))
{ System.out.println("We all died on the trail.");
}
else {
System.out.println("ON TO OREGON!!!");
}
```

Console will print:
ON TO OREGON!!!

3. (2%) Are there any logical mistakes in this code? If so, list them. `if(foodLeft = 0);`
`System.out.println("We are all starving!");`

`foodLeft` will assign to 0 and we will get in infinite loop so we should first create a double and assign it to number very close to 0 for example $1e-14$ and then check if `foodLeft` is less than our double.

4. (2%) `Math.random()` can return 1.0.

(b) False

5. (2%) The first 128 characters of Unicode are the same as ASCII.

(a) True

6. (2%) What will the following code print out?
`System.out.println(`One plus one is ` + 1+1);`

One plus one is 1 1

7. (2%) Why is using "==" not correct for comparing two Strings?

8. (2%) A String's data can be changed after the fact without creating a new String.

(a) True

9. (2%) What substring will be returned from the following code?

```
``Sometimes you have to roll a hard six.".substring(4,11)
```

times y