

Class 9, Homework Assignment

Question 1 (2 points). Let 'a' equal -4. Use nested if else statement to determine the value of 'b' among 'positive odd number', 'positive even number', 'negative odd number', 'negative even number', and 'zero' based on 'a'. Change 'a' to 0, and re-determine the value of 'b'.

Question 2 (2 points). Convert the following ifelse() function to an if else statement.

```
a <- 75
b <- ifelse(a >= 90, 'excellent', ifelse(a >= 80, 'good', ifelse(a >= 70, 'OK', 'poor')))
b

## [1] "OK"
```

Question 3 (2 points). Convert the following if else statement to an ifelse() function.

```
name <- 'Bruce'
if (name == 'Clark') {
  alter <- 'Super'
  origin <- 'Krypton'
} else if (name == 'Bruce') {
  alter <- 'Bat'
  origin <- 'Earth'
} else {
  alter <- 'other'
  origin <- 'dunno'
}
alter

## [1] "Bat"

origin

## [1] "Earth"
```

Question 4 (4 points). Use the code provided below to generate two vectors with random integers and call them 'a' and 'b', respectively. Assuming these are the counts of two species and you want to create a variable called 'compare' based on the comparison of the medians of 'a' and 'b'. The value of 'compare' will be 'equal', 'greater', or 'less' if the median of 'a' equals, is greater than, or is less than the median of 'b', respectively. Use both if else statement and ifelse() function to do so.

```
a <- rpois(n=20, lambda=2)
b <- rpois(n=15, lambda=1.8)
a
```

```
## [1] 3 3 5 0 3 1 2 3 5 4 1 4 3 4 0 1 3 4 6 1
```

```
b
```

```
## [1] 0 3 0 0 0 1 3 4 2 2 2 3 0 2 3
```