SENG2200/6220 –Programming Languages & Paradigms
Self-Quiz for Week 10, Semester 1, 2020

True/False Questions.

1. Pure function-oriented programming languages do not have the concept of variables.

2. In Scheme, we can create a nested list.

3. The following codes both output (+ 1 2).
   ```
   a. '( + 1 2 )
   b. `( ,(+ 1 2) )
   ```

4. The list (1 2 3) can be considered as (1 . (2 . (3))).

5. (eq? (list 1) (list 1)) will output #t.

Short-Answer Questions

6. Write a max function to find the maximum number of the two numbers.

7. What is the result of the function below?

```
( letrec (

    ( A ( lambda (x)

        ( if (> x 0) ( B (- x 1) ) 0 ) ) )

    ( B ( lambda (y)

        ( if (> y 0) ( A (- y 1) ) 1 ) ) )

    ) `( ,( A 3 ) , ( B 3 ) )

)
```