CSC110Y1F , Fall 2022   Term Test 1

1. **[13 marks] Short answer.**

   (a) **[3 marks] Python data types and expressions.**

   For each of the following Python expressions, write down the value that would be displayed in the Python console. *If evaluating an expression would cause an error, write ERROR* **and** *briefly explain why the error would occur.*

   ```
   >>> 100 * (2 ** 3)
   ```

   800

   ```
   >>> len('CSC110') + len({'abc'})
   ```

   7

   ```
   >>> sum({x ** 2 for x in range(1, 4)})
   ```

   14

   ```
   >>> {'hi': 2, 'bye': 3}[2]
   ```

   ERROR
   A 'dict' can only be traversed through using keys, not indexes.
   Since there is no key 2, an error message appears.

   ```
   >>> [x * 100 for x in [10, 20, 30] if x > 20]
   ```

   [3000]

   ```
   >>> str.lower('David is cool'[0])
   ```

   'david'