

## CIS\*4650 (Winter 2020) - Marking Scheme for Checkpoint Two

Group	Questions	Comments
	Documentation (20)	
	Symbol Tables: (35) <ol style="list-style-type: none"> <li>1. Hash tables</li> <li>2. Simple vars (int and void)</li> <li>3. Array variables</li> <li>4. Functions/Blocks               <ul style="list-style-type: none"> <li>-entry and exit</li> </ul> </li> <li>5. Errors: undefined/redefined</li> </ol>	
	Type-Checking: (45) <ol style="list-style-type: none"> <li>1. array range/index are int</li> <li>2. two sides of an assignment</li> <li>3. two sides of an operation</li> <li>4. func calls and return exps</li> <li>5. test conditions must be int</li> </ol>	

<p>Symbol Ttable:</p> <ol style="list-style-type: none"> <li>1. Hash table</li> <li>2. Simple variable</li> <li>3. Array variable</li> <li>4. Functions/Blocks             <ul style="list-style-type: none"> <li>- entry/exit</li> </ul> </li> <li>5. Error: undefined/redefined vars</li> </ol>	<ol style="list-style-type: none"> <li>1. Show key-value pairs in different scopes</li> <li>2. <code>int x;</code></li> <li>3. <code>void foo(void) { };</code></li> <li>3. <code>int bbb[10];</code></li> <li>4. Show symbol tables at entry/exit for gcd</li> <li>5. Use z without a declaration and declare y twice within a function</li> </ol>
<p>Type-Checking</p> <ol style="list-style-type: none"> <li>1. array range/index must be int</li> <li>2. match two sides of an assignment</li> <li>3. match two operands</li> <li>4. function calls and return exps</li> <li>5. test conditions for if- and while-stmts must be int</li> </ol>	<ol style="list-style-type: none"> <li>1. <code>void main(void) {     int a[2]; int x;     a[x] = 1;     a[foo()] = 2;   // assuming void foo() }</code></li> <li>2. <code>void main(void) {     int x;     x = foo(); }</code></li> <li>3. <code>int fun(int fff ) {     int x; int y;     x = x * 2 + 1;     y = x + foo(); }</code></li> <li>4. <code>void funtwo(void) {     int x;     x = 2;     return x; }</code></li> </ol>
<ol style="list-style-type: none"> <li>5. <code>void main(void) {     int x;     if( x ) output(foo());     if(foo()) output(x, foo()); }</code></li> </ol>	