

## CIS\*4650 (Winter 2016) --- Marking Scheme for Checkpoint Two

Group	Questions	Comments
	Documentation (20)	
	Symbol Tables: (40)	
	1. Hash tables	
	2. Simple vars (int and void)	
	3. Array variables	
	4. Functions/Blocks	
	-entry and exit	
	5. Errors: undefined/redefine	
	Type-Checking: (40)	
	1. array range must be int	
	2. two sides of an assignment	
	3. two sides of an operation	
	4. func dec. vs. return exp	
	5. test condition must be int	

<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</li> <li>- entry/exit</li> <li>5. Error: undefined var</li> </ol>	<ol style="list-style-type: none"> <li>1. Show key-value pairs in different scopes</li> <li>2. int x; void y;</li> <li>3. int bbb[10];</li> <li>4. use the gcd example and show the symbol tables at entry/exit.</li> <li>5. use z in a function without declaring it</li> </ol>
<p>Type-Checking</p> <ol style="list-style-type: none"> <li>1. array range must be int</li> <li>2. match two sides of an assignment</li> <li>3. match two operands</li> <li>4. function declaration and return exp</li> <li>5. test condition must be int</li> </ol>	<ol style="list-style-type: none"> <li>1. void main(void) {     int a[2]; int x; void y;     a[x] = 1;     a[y] = 2; }</li> <li>2. void main(void) {     int x; void y;     y = x; }</li> <li>3. int fun1(int fff ) {     int x; int y; void z;     x = x * 2 + 1;     y = x + z; }</li> <li>4. void fun2(void) {     int x;     x = 2;     return x; }</li> </ol>
<p>5. void main(void) {     int x; void y;     if( x ) output(x);     if( y ) output(y); }</p>	