CIS*4650 (Winter 2021) - Marking Scheme for Checkpoint Two

Group	Questions	Comments
	Documentation (20)	
	Symbol Tables: (35) 1. Hash tables 2. Simple vars (int and void) 3. Array variables 4. Functions/Blocks 　-entry and exit 5. Errors: undefined/redefined	
	Type-Checking: (40) 1. array range/index are int 2. two sides of an assignment 3. two sides of an operation 4. func calls and return exps 5. test conditions must be int	
	Command line flags "-a" and "-s" (5 marks)	

Symbol Ttable: 1. Hash table 2. Simple variable 3. Array variable 4. Functions/Blocks 　- entry/exit 5. Error: undefined/redefined vars	1. Show key-value pairs in different scopes 2. int x; 3. void foo(void) { }; 3. int bbb[10]; 4. Show symbol tables at entry/exit for gcd 5. Use z without a declaration and declare y twice within a function

Type-Checking
1. array range/index must be int
2. match two sides of an assignment
3. match two operands
4. function calls and return exps
5. test conditions for if- and while-stmts must be int
 	
5. void main(void) {
　　int x;
　　if(x) output(foo());
　　if(foo()) output(x, foo());
　}
	1. void main(void) {
	　　int a[2]; int x;
	　　a[x] = 1;
	　　a[foo()] = 2; // assuming void foo()
	　}
	2. void main(void) {
	　　int x;
	　　x = foo();
	　}
	3. int fun(int fff) {
	　　int x; int y;
	　　x = x * 2 + 1;
	　　y = x + foo();
	　}
	4.　void funtwo(void) {
	　　int x;
	　　x = 2;
	　　return x;
	　}