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

**95**

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| Group | Questions | Comments |
|  | Documentation (20) | -0: Don’t forget your name in the documentation next time. |
| 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 | -2: Array variables should display size. |
| Type-Checking: (45)  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 | -3: propagation of void type error in nested arithmetic operation/assignment. |

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| 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;  } |