CSE324 Quiz #6 Name----------

I) True or False: (one point each)

1. The introduction of the *enumerated types* in Pascal is an example of gaining security and loosing ease of input/output of *enumerated types* names to/out of the program. **T**

2. In Pascal, the activation record (AR) of *definer* as well as the *caller* of any called/activated procedure (*callee*) must be in the program run time stack. **T**
   Otherwise we would not be able to call such procedure, and access its environment.

3. In Pascal, a name is visible/accessible <u>if and only if</u> it has a <u>positive</u> *static distance*.
   F
   We showed in class a + sd , yet the name is not visible, according to the CD.

4. Passing a procedure/function as a parameter in Pascal is a *powerful* polymorphic feature, yet it forces the inefficient *dynamic* type checking, in the language. **F**
   The compiler can easily check the call of such formal parameter since it forces the full definition of the formal parameter proc/function, i.e., complete list of its formals (and the return type in case of a function).

5. The *subrange* type in Pascal will introduced a ***security loophole*** of its own. **T**
   What does it mean to multiply/add/divide "dayOfTheMonth" subrange of integer??!?!

II) <u>The following questions are multiple choices; select (circle) the **BEST** answer: (2 pts each)</u>

1) Among FORTRAN, Algol, Java, and Pascal, the language(s) with a security loophole that is not related to their typing systems is(are):
   a) FORTRAN b) Pascal c) Algol d) all of the above
   e) b and c above f) d and C **g)** a and c above

2) A type that allows the aggregation of different heterogeneous values (e.g., *record*, *structure*) exists in the following programming language(s):
   a) FORTRAN-II b) C c) Pascal d) Algol e) all of the above
   f) b and c above g) f and d above

3) Just before calling procedure P, from the code of procedure M, the π_{ep} (virtual processor π environment) pointer will be pointing to:
   a) the AR to be allocated for P b) the bottom of the stack c) the definer of P
   d) P's environment e) any created stack AR's in the user program
   f) none of the above

4) The **"**enumerated**"** type, in PASCAL, is introduced for more:
a) powerful typing system b) securer typing system c) efficient memory utilization
d) all of the above e) only b and c above f) d and faster program execution

5) Non-types pointers "**void ***ptr" exist in:
a) C b) Pascal c) C++ d) all of the above e) b and Java **f)** a and c above