

CS 6V81-002: Quiz 1 Solutions

January 14, 2008

1. Circle each of the classic security principles in the list below:
 - (a) Principle of Greatest Privilege
 - (b) Principle of Least Privilege**
 - (c) Path of Greatest Resistance
 - (d) Path of Least Resistance
 - (e) Maximal Trusted Computing Base
 - (f) Minimal Trusted Computing Base**
2. Safety policies say that...
 - (a) some “bad thing” never happens**
 - (b) some “good thing” eventually happens
 - (c) confidential information is not disclosed
 - (d) public information is eventually disclosed
3. Execution Monitors enforce...
 - (a) safety policies**
 - (b) availability policies
 - (c) information flow policies
4. Give one example of a certifying compiler: **Correct answers include any Java compiler, the Touchstone compiler, or any TAL-targeting compiler (e.g., the Popcorn compiler).**
5. Which of the following is NOT a valid reason to replace a Reference Monitor (RM) with an In-lined Reference Monitor (IRM)?
 - (a) the IRM can be implemented in hardware whereas the RM cannot**
 - (b) the IRM will make fewer context-switches than the RM
 - (c) the IRM can observe some events that the RM cannot
 - (d) an IRM implementation can omit some unnecessary runtime checks by using program-analysis