QB1Solution

[A , 4 points ]Fill-in:

[A1] Reliability = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.(Correctness , Robustness)

[A2] Modularity = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. (Reusability, Extendibility)

[A3] The acronym UML stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. (Unified Modeling Language)

[A4] The acronym OCL stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. (Object Constraint Language)

[B, 1 point ] Multiple Choice:

[B1] Efficiency is an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ quality factor. (a)

(a) external (b) internal

[C, 4 points ] Short Answer

[C1] Explain the terms “Software Engineering”, “Software Crisis” , “No Silver Bullet”, and

“Design by Contract.”

Software Engineering : Production of quality software.

Software Crisis : Failure to deliver quality software on time, within budget.

No silver bullet: There is no guaranteed single thing that can solve the software crisis.

[D , 6 points] True/False

[D1] Functional decomposition works top-down. (T)

[D2] Object oriented decomposition works bottom-up. (T)

[D3] Functional decomposition results in reusable module. (F)

[D4] Object-oriented decomposition results in reusable modules. (T)

[D5] Object-oriented decomposition can manage greater complexity than functional decomposition can.

(T)

[D6] Real systems do not have a top. (T)