QB10Solution

[A, point] Multiple Choice

[B, 5 points] Fill-in:

[B1] The acronym OCL stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

(Object Constraint Language)

[B2] The acronym PIM stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

(Platform Independent Model)

[B3] The acronym PSM stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

(Platform Specific Model)

[B4] The acronym MDA stands for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

(Model Driven Architecture)

[B5] Models + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = Software

(Transformations)

[C, 3 points] True/False

[D, 3 points] Short Answer

[D1] Explain the six modeling maturity levels.

Level 0 : No written specification (specification in head of developer)

Level 1: Textual

Level 2 : Textual + Diagrams

Level 3 : Model + text ( Model = UML diagram )

Code written manually

Level 4: Precise Model (UML + OCL)

Partial automatic code generation; manual tweaking of code needed.

Level 5: Model only.

Not yet achieved. Makes full code generation automatic.

[D2] Discuss: MDA is the missing “silver bullet” for solving the software crisis.

MDA is being adopted more widely, and many believe this is the missing silver bullet that will

solve the software crisis.

[D3] Explain why OCL is needed.

See page 13 of the OCL textbook.