Institute of Technology University of Washington – Tacoma Instructor: Wes Lloyd

# **Assignment 2 – Software Engineering Review**

Due Date: Monday March 6th, 2017 @ 11:59 pm, tentative

### Question 1 (15 points)

Provide a brief description for how software requirements are determined using the following software processes. Your description should identify what is different.

- A. (5 points) Waterfall
- B. (5 points) Spiral
- C. (5 points) Agile

### Question 2 (15 points)

List and describe *three* characteristics of a software project where the selection of an *agile software development process* is most appropriate.

#### Question 3 (10 points)

List and describe *two* advantages of software development with a service oriented architecture (SOA). These advantages should highlight key reasons for the adoption of SOA.

### Question 4 (10 points)

Describe **two** good characteristics of SMART User Stories?

#### Question 5 (10 points)

Describe one advantage, and one disadvantage of a distributed version control system?

### Question 6 (10 points)

Describe what is cohesion in modular and object oriented software development?

#### Question 7 (15 points)

Describe what is coupling in modular and object oriented software development? Describe at least *two* reasons why we strive to reduce coupling.

## Question 8 (15 points)

Using the internet, go online and identify *three* software metrics which try to measure code coupling. List your *three* metrics and provide their names including what any acronyms may stand for. Choose *one* coupling metric. Describe (1) what this metric is, and (2) how we could assess the metric in practice. In your description, try to answer: "what precisely is counted, and how?"

#### What to Submit

For this assignment, submit a PDF file to Canvas which includes your typed answers to the questions. Submissions should not exceed 5 pages.