

CSIE5142/CSIE4302 Software Engineering

Homework # 1

Due on 10/11/2017

1. (40%) Process Models
 - (a) (10%) Describe the characteristics of the plan-driven and agile processes.
 - (b) (10%) Draw and describe the major activities of the waterfall process.
 - (c) (10%) Draw and describe the major activities of the Scrum process.
 - (d) (10%) Describe the differences between the plan-driven and agile process models in terms of their philosophy and applications.
2. (20%) CMMI
 - (a) (2%) What is CMMI?
 - (b) (3%) What is it used for?
 - (c) (8%) What is CMMI staged representation?
 - (d) (7%) Explain the advantages of implementing CMMI.
3. (20%) Other process models
 - (a) (10%) Draw and describe the major activities of the Unified Process (UP).
 - (b) (10%) Draw and describe the major activities of the spiral model.
4. (20%) Theory and Practice

Your team is responsible to develop the class team project (**Programming Assignment Submission System, PASS**) within a semester. Describe what type of process model (plan-driven or agile) you plan to adopt (or adapt) and specify the activities and their sequences of your process. Also justify the selection of your process model from the perspectives of product and project characteristics, developers, required technology, management, and others.