

CIS 422/522 – Software Methodology I

Midterm Review Questions

1. What are the purposes of software engineering?
 - a. What is managerial control?
 - b. What is intellectual control?
 - c. Why are both important to a successful software development effort?
2. What are the key skills and attitudes supporting a successful development team?
 - a. Why are people skills and teamwork skills important for a software developer?
 - b. What are the most important attributes of a good team member?
 - c. What are different approaches to structuring teams?
 - d. How should teams arrive at decisions?
 - e.
3. What purposes do software processes serve in guiding software development?
 - a. What is meant by a “software life-cycle?”
 - b. What do we mean by “software process” in the class context?
 - c. What are the distinguishing characteristics of the different software process models described in class?
 - d. Why do people use so many different kinds of processes?
 - e. What considerations should guide developers in choosing a software process (assuming that they have a choice)?
4. How are different project management tools used to exert managerial control?
 - a. What is the purpose of a Work Breakdown Structure?
 - b. What is the purpose of a PERT chart?
 - c. What is the purpose of a Gantt chart?
5. What is a “software requirement?”
 - a. Why is it important to get the requirements right, preferable as early as possible?
 - b. What are the primary goals of the requirements activities?
 - c. What are the risks (difficulties) in achieving the requirements activity goals?
 - d. What would be the benefit of having different versions of the requirements written in different languages? What would be the drawbacks?
 - e. Who are the audiences for the ConOps (as describe in class) and for what purposes would they use the document?
 - f. Who are the audiences for the SRS and for what purposes would they use the document?
 - g. What kinds of specification methods are appropriate to each of the documents (ConOps and SRS)?
 - h. What is a Use Case?
 - i. How would you write a use case to describe the following kind of requirement...?

- j. What is the difference between Behavioral Requirements and Developmental Quality Requirements?
- k. What does it mean for a requirement to be “testable” (equivalently, “verifiable”)? Can you write a testable quality requirement?
- l.