

CLOSE BOOK ,考試時間四小時,每題 10%

Software Engineering

1. What is software? What is quality software? How to approaching quality software?
2. Discuss the steps of the risk-based and development driven software project planning process.
3. Given examples to discuss the concept of planned change control process and unplanned change control process.
4. Why 、 what 、 and how products and process reviews? Discuss with examples.
5. Why 、 what 、 and how CMM measurement? Discuss with examples.
6. How are the concepts of coupling and software portability related? Provide examples to support your discussion.
7. Is unit testing possible or even desirable in all circumstances? Provide examples to justify your answer.
8. Give an example in which black-box testing might give the impression that “everything’s OK,” while white-box tests might uncover an error. Give an example in which white-box testing might give the impression that “everything’s OK,” while black-box tests might uncover an error.
9. The principle of component independence means that it ought to be possible to replace one component with another that is implemented in a completely different way. Using an example to discuss how such component replacement might have undesired consequences and may lead to system failure.
10. Discuss the differences between verification and validation. Which one is more difficult to process?