

ECE 417/617 Assignment #9

Read Chapters 20 and 21 of Steve McConnell, *Code Complete*, 2nd edition, Microsoft Press, 2004.

Then answer the following questions.

Chapter 20: The Software-Quality Landscape

98. If you search on-line, you will learn that Hewlett-Packard developed the FURPS model for classifying software attributes. Map the items in FURPS with those of McConnell's. Is FURPS addressing external or internal characteristics?

99. Based on the Weinberg-Schulman experiment, what advice would you give a manager who wanted to increase the readability of the code produced by the software team?

100. What is the most common approach to defect removal?

101. To get a higher defect-detection rate, what is necessary?

102. Microsoft found that a one-step technique was 4 times less expensive than a two-step technique in finding and fixing bugs. Name each technique.

103. What is surprising about the conclusion of the study conducted by DeMarco and Lister in 1985?

104. What does McConnell mean when he says that "Quality is free"?

Chapter 21: Collaborative Construction

105. What are the four techniques for collaborative construction mentioned by McConnell? Which one does McConnell favor?

106. According to IBM, one hour of code inspection saves how many hours of later work?

107. What is the minimum number of participants in a formal code inspection, and what are their roles?

108. What did McConnell learn while preparing his second edition of the book?

109. What is the danger of an informal walk-through?

110. Why is code reading an attractive alternative to formal code inspections?