

## CS6403 Software Engineering

### TADR (Think, analyse, discuss and respond) – 6

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1. What do you understand by the term 'stress testing'? Suggest how you might stress test the Mentcare system of Sommerville.
2. What is the purpose of release testing? How is it different from system testing?
3. You have been testing a code artifact for 11 days and found two faults. What does this tell you about the existence of other faults?
4. Why is there a need to distinguish between a fault, a failure, and an error? Surely the use of the umbrella term defect simplifies matters?
5. You are a software engineer involved in product development. Your manager asks you to investigate ways of ensuring that modules designed by your group will be as reusable as possible. What do you tell her?
6. Your manager now asks you to determine how existing modules can be reused. Your first suggestion is to break each module with coincidental cohesion into separate modules with functional cohesion. Your manager correctly points out that the separate modules have not been tested nor have they been documented. What do you say now?
7. What is the influence of cohesion on maintenance?
8. What is the influence of coupling on maintenance?
9. Which of the seven levels of cohesion promote reuse?
10. Which of the five levels of coupling promote reuse?
11. Module p does not invoke module q . Nevertheless, modules p and q are coupled. How can this happen?
12. Distinguish between data encapsulation and abstract data types.
13. Distinguish between abstraction and information hiding.
14. It has been suggested that C++ and Java support implementation of abstract data types but only at the cost of giving up information hiding. Discuss this claim.