

# Study Questions 4 – Functional TDT

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## 1 Overview

You are to be able to answer all questions below, but we only want you to hand in the particular question that you have been randomly assigned.

## 2 Questions

1. Describe different ways to group test design techniques and give examples of different test design techniques for each group. Motivate your groups.
2. Why is it not enough to call it just test techniques? Give an example. Why is it easier to define test cases for specified parts of a system? Give examples or describe why.
3. Why is “requirement based testing” not really a TDT more than positive test? Find a requirement on software (somewhere on the web), and describe different test design techniques that could be used to test that specific requirement.
4. Why are negative test cases hard to create? Can you give example of things you could attempt to challenge the input in a textfield? Why are negative test cases important to test?
5. Explain the order of input domain analysis and how this relates to EP? What is the “normal” amount of input values you should try for a BVA, and what are claimed to be the maximum number of possible values (if you take all types and representations into account)? Try to explain why EP is a basic and good technique for all testing; invent some examples to make your point.
6. Try to explain what is good and what is bad about each test design technique; EP, BVA, Positive, Negative, State-transition, Use-Case and permutation.
7. What is the most common misunderstanding people have regarding the concepts “black-box” and “white-box” techniques? What do you think is the consequence of only testing a system through its user interface – in a black-box manner, and motivate why it might be totally inadequate to test a system only through its interface?
8. Why is the “experience based” test design technique not really a “design”-technique? Explain why, and give examples.
9. Integration test is a process phase, but if you were to select a series of functional test cases to be used to test the integration of several software components – what do you think would be most important types of test cases you should write? Motivate why.
10. You are responsible for the integration test of many different software components that are developed all over the world. You have very little time to make sure all components work together. What kind of tests and test design techniques used would you like to have been

done before you integrate these components into the system? Explain and motivate your choice.

11. In one way all test selection criteria can be considered “a model”. But – when people often talk about model-based testing, what technique or techniques do they refer to? How is it best defined? What are typical characteristics of model-based testing? What are the advantages and disadvantages with model-based testing? When is it best used? Why is not all testing done using model-based testing?

### **3 Report**

You should write between one half and one full A4-page depending on the question and hand it in via Its learning. For some questions you might have to write more, but for most questions it should suffice with the above mentioned page limit.