BLG475E - Software Quality and Testing
SAMPLE MIDTERM EXAM

Date:	
Duration:	120 mins.
Instructors:	Assist. Prof. Dr. Ayşe Tosun
	Lecturers from Turkcell
Notes:	Closed book, dictionaries are allowed! Write your answers on this paper.

Student ID:	Name, Surname:	Signature:

Q. 1: Write five main steps in testing process. Explain the purpose of each step and set of actions that should be done during each step.

Q. 2: Consider a web application that has three modules: Login, User View, and Transaction. Assume that Login module is implemented and ready for testing, but we call functions from User View. User View is still under implementation and hence is not ready for testing. Similarly Transaction module is still under implementation, and it calls functions from User View.

   a) How do you test the following scenario (below)? Which testing strategy do you use?

A user logs into the system (Login module) and clicks on User View module for changing his/her contact details.

   b) How do you test the following scenario (below)? Which testing strategy do you use?

A user completes a transaction (shopping an item) from Transaction module by using information from User View module (such as contact details of the user).

Q. 3: Suppose you are testing a client application that runs on a user's PC and communicates with the server. Starting the application takes 10 seconds, which includes login as well. Login operation takes 5 seconds. Since only the login is sending data to the server, total transaction time will be measured as 5 seconds.

Operations that only happen on the client, including the time users take to enter data or spend looking at the screen is simulated with "user think time", i.e., an intentional delay that is inserted into the test script.

a) What happens if you do not include the "user think time" to your test scripts?

Q. 4: Suppose you are going to test a stock search operation in this application. A stock search operation considers the following steps: Starting the application (including login), searching an item for a particular Item ID, and editing the item's description.
Answer the questions below according to this explanation.

a) Give two example test cases for functional testing of the stock search operation. Choose one positive test case (a default scenario featuring no exceptional or error conditions) and one negative test case (an erroneous scenario). Write the steps of your test cases, data requirements for executing the operation (if any), and expected output.

b) Give an example of a performance test case for stock search operation. Write the steps of your test case, data requirements (if any), and expected output.

c) How does your test case for performance testing differ from your test cases for functional testing?

Q. 5: Read the following functional specification.

A new discount package will be offered to customers who are invoiced (Turkish: faturalı) subscribers of Turkcell for at least 5 years. This package gives a 20% discount in data transfer for a period of one month. Eligible customers, whose requests will be collected via an SMS message, shall get this discount package and use it for a period of one month.

   a) Draw the testing flow graph of this functional specification and list the paths of all test scenarios that should be covered.

   b) Write the test cases for smoke test only.