Final Assessment of Service Science (401077)
3 February 2014

Exam rules:
No books or reference material, mobile phones or other electronic devices.
The questions should be answered in **English**

Student Name:
Student Number:
Bachelor in:

Highest Possible Score: 100

Total number of questions: 10

Part 1. Business Services

1. Basic service terminology (10 points)

During the first lecture, two different perspectives on the notion of 'service' were discussed namely (1) the business science perspective, and (2) the computer science perspective.

a. Discuss these perspectives, by using the various definitions of the perspectives, such that the differences between the perspectives become clear (3 points).
b. Use an example (per perspective) to explain the perspective (4 points).
c. Although the business perspective and computer science perspective highlight important characteristics of service, it is possible to take other perspectives also. Mention and explain at least one other perspective (3 points).

2. Service Strategy (10 points)

Information and communication technology (ICT) can play a competitive role in services. One such role is the creation of barriers to enter a market. By creating barriers to entry, it becomes more difficult for competitors to enter a specific market.

a. One way to create barriers to entry is to introduce switching costs. Explain what switching costs are. (5 points)
b. Give an example of switching costs for eServices. (5 points)

3. Service development (10 points)

Service blueprinting is a graphical technique used during service development. It shows physical evidence; customer actions, onstage contact persons, backstage contact persons, and support processes.

a. Explain the notions of physical evidence, customer actions, onstage contact persons, backstage contact persons, and support processes. (5 points)

b. Consider a fast food restaurant. Give for the notions of physical evidence, customer actions, onstage contact persons, backstage contact persons, and support processes an example. (5 points)

4. Service quality (10 points)
   The following five dimensions are often used to judge service quality: reliability, responsiveness, assurance, empathy, and tangibles.
   a. Describe the dimensions reliability, responsiveness, and empathy, and give for each of these three dimensions an example (6 points).
   b. E-S-QUAL is an effectiveness measurement instrument for websites offering services. E-S-QUAL considers Efficiency (navigation), System availability (e.g. web site does not crash), Fulfillment (e.g. ordered items arrive quickly), and Privacy. Argue, based on the previous four aspects of E-S-QUAL if E-S-QUAL is also usable as an effectiveness measurement instrument for web services (4 points).

5. Globalization of services (10 points)
   Quality properties of physical goods (sometimes also called 'products') are different than properties of services. Discuss the difference between physical goods and services by explaining possible different quality properties.

Part 2. Web Services

6. Communication between web services can be done in two ways synchronous and asynchronous, compare and contrast these two types of communication (10 points).

7. In Lecture two Web services were described as a certain kind of e-services.
   a. Explain what is a web service in relation to an e-service. (7 points)
   b. Make an example of an e-service that is <u>not</u> implemented by a web service. (3 points)

8. One of the main objectives of WSDL is standardization
   a. Describe what is standardized by WSDL (5 points)
   b. Explain why standardization is needed for describing web services (5 points)

9. A service requester needs to discover web services that offer "flight booking" services. Explain how UDDI standard supports discovering such services. (10 points)

10. For ordering goods a client application communicates with a supplier web service. The supplier web service publishes the conversations that it supports using coordination protocol shown in the Figure below. Considering this coordination protocol,
    a. Explain the allowed sequence of the message exchanges between the customer (client) and supplier (web service). (7 points)

b. Explain what constraints does this coordination protocol impose on the internal business logic of the client code. (3 points)