Question 1: (10 + 10 + 15 + 15 = 50 points) *Infrastructure Virtualization*

Briefly answer (in a few sentences) the following questions:

(a) Explain the main reasons for host virtualization and how it is related to cloud services.
(b) Explain the main reasons for network virtualization and how it could be use for cloud services.
(c) Discuss the benefits and drawbacks of host virtualization.
(d) Assume you have remote access to a host. What would be a way to determine whether this host is virtualized or not?

Question 2: (10 + 10 + 10 + 20 = 50 points) *IP Mobility*

Figure 1 shows two users A and B in different but interconnected networks. User A is a mobile end-host and moves from network 2 to network 1. Answer the following questions:

(a) Why is IP mobility necessary in today's Internet?
(b) What challenges does this pose on Internet Protocol (IP)?
(c) Assume that user A gets a new IP address when roaming to a new network. What applications are affected by this and why?
(d) User A is maintaining an ongoing connection to user B while roaming to a new network. What strategies can be used to maintain the connection? Explain briefly.

Due Date: Thursday, February, 10rd 2011 only until 13:55 h s.t.

- As PDF files (no MS Office or OpenOffice files): Uploaded via ISIS (https://www.isis.tu-berlin.de/course/view.php?id=3584)
- On paper: Postbox in the Telefunkenhochhaus (basement, behind the doorman right)
- Put your name, StudentID number (Matrikelnummer) and the name of your tutor on your solution.