



EXAM 13th of May 2011
BME-4606 Drug Delivery Devices

1.
 - a) How would you define drug delivery by a controlled way? (3p)
 - b) What are the main routes for a drug to exit the body? (3p)
2. There are ten (10) main routes for drug administration. Name them and describe shortly the way of administration (6 p)
3. What are the main principles as a drug delivery system based on:
 - a) Hydrogels (3p)
 - b) Transdermal delivery system (3p)

Give optimal indications, benefits and problems.
4. What is meant by
 - a) Personalized medicine? (3p)
 - b) Chemogenomics and what is the aim of it? (3p)
5. Let's assume that you have developed a good and effective medicine which is delivered orally. However, to be absorbed the medicine needs an environment with pH 6-7 and is destroyed by acids. Additionally, the medicine is easily causing local irritation when in contact with the mucosa of digestion system. How would you solve these problems in order to get maximal concentrations of the medicine to the blood? (6p)