The following is a list of possible questions for our quiz on January 26th. Some of the questions will not be asked in the quiz. All the questions that will appear in the quiz will appear exactly as shown below (however, numeric parameters may be changed). The quiz is closed textbook, closed notes and closed neighbors. Note that the questions, which did not appear in this quiz, still may appear in the exams. You will find a solution for these questions during lectures.

#1: What are the five key words that describe “what is socket” (you do NOT have to describe them, just name the five key words)?

#2: Why do network applications use sockets for their data transmissions (i.e., why do not network applications transmit data by themselves)?

#3: What is the client/server model (describe the concept of the client/server model)?

#4: What are “blocking function calls”? 

#5: Sketch the communication between a client and a server for Project Phase 1 using socket (show the direction of messages and identify which functions are blocking functions).

#6: Describe what “socket ( )” system call (API) will perform with a picture.

#7: Describe what “bind ( )” system call (API) will perform with a picture.

#8: Describe what “listen ( )” system call (API) will perform with a picture.

#9: Describe what “accept ( )” system call (API) will perform with a picture.

#10: Describe what will happen when an incoming connection request from a client happens for “accept ( )” system call (with a figure).

#11: Describe what “(TCP) port” is. What is the primary purpose of “ports” (i.e., why no “IP address is not enough to specify a destination of a socket connection)?

#12: How can we find open TCP ports at a host computer?

#13: Why “accept” function duplicates a connection on establishing a connection?

#14: What are the two most important pieces of information “sockaddr_in structure” hold?

#15: A server process usually has two instances of “sockaddr_in structure”. Why two (why not one)?
#16: IP addresses are actually not the address for each host computer. Then, what is it for?