The following is a list of possible questions for our quiz on November 11th. 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.

PART I – Internet Routing

#1: Which types of routing (source routing, centralized routing or distributed routing) should BGP be categorized to? Justify your choice.

#2: What is the difference between “routing protocols” and “routing algorithms”? 

#3: What is the essential difference between “ISP” and “AS”? 

PART II – Switches and Routers

#4: What is “routing algorithm”? 

#5: Mention two examples for “routing algorithm”.

#6: What is “routing table”? Mention one example for “routing table”.

#7: What is “routing protocol”? 

#8: Sketch “cross-bar switch” and “bus switch”.

#9: Provide a sketch of “switching table”.

#10: What are “layer-3 switches”? 

#11: Why are “layer-3 switches introduced”? 

#12: Sketch the internal structure of “switching routers”.

#13: What is the advantage of switching routers (i.e., “layer-3 switches”)?

#14: What are the possible performance metrics for routing (mention at least four)?

#15: What is “centralized routing”? 

#16: What is the primary problem in “centralized routing”? 

#17: Show how a routing table used in “centralized routing” looks.
#18: What is “source routing”?

#19: What is the primary problem in “source routing”?

#20: Show how a routing table used in “source routing” looks.

#21: What is “distributed routing”?

#22: Show how a routing table used in “distributed routing” looks.

#23: Why is “Wi-Fi” not a wireless network?

#24: What are “mobile ad-hoc wireless networks”? How are they different from “Wi-Fi”?