Please carefully review the following list of contents. The final exams will not necessarily cover everything in the list, but the topics beyond this list will not be covered. Inside the parentheses, the forms of questions that will appear in the final exam and the points related to the specific chapters are also provided.

1. Introduction (**concepts and calculation, 14 points**)
   physical media, protocol layers; service models; network edge; network core; delay, loss, and throughput
2. Application Layer (**concepts and calculation, 16 points**)
   application architectures; sockets; HTTP; FTP; cookies; web caches; DNS
3. Transport Layer (**concepts and calculation, 23 points**)
   multiplexing and demultiplexing; rdt (state machine excluded); UDP; TCP
4. Network Layer (**concepts and calculation, 22 points**)
   control plane and data plane concepts; IP; routing protocols; intra-AS routing; inter-AS routing; ICMP
5. Link Layer (**concepts and calculation, 19 points**)
   error detection and correction; multiple access protocols; LANs
6. Wireless and Mobile Networks (**concepts, 6 points**)
   wireless link characteristics; IEEE 802.11 (Wi-Fi); cellular networks; mobility management