#1: Define local area networks (“LANs”) by answering the following issues:
   (a) Primary purpose
   (b) Size
   (c) Ownership

#2: Define wide area networks (“WANs”) by answering the following issues:
   (a) Primary purpose
   (b) Size
   (c) Ownership

#3: Define internet (the Internet) by answering the following issues:
   (a) Primary purpose
   (b) Size
   (c) Ownership

#4: Define intranet by answering the following issues:
   (a) Primary purpose
   (b) Size
   (c) Ownership

#5: What are “repeaters”?

#6: What are “multi-port repeaters”?

#7: How are “switches” different from “repeaters”?

#8: “Network hubs” can be two different types of network connecting devices. What are they?

#9: What are “multi-port bridges (switching hubs)”?

#10: What is the primary advantage of “switch” (compared to “repeaters”)?
#11: How are “routers” different from “switches” (mention two major differences)?

#12: Internet consists of a large number of networks, called “(network) domains” inter-connected by routers. Why not switches or repeaters used for inter-connecting domains, instead of routers?

#13: What is (are) the primary advantage(s) of routers, compared with switches?

#14: What is (are) the primary disadvantage(s) of routers, compared with switches?

#15: What is “medium access control (MAC)”?

#16: What is “centralized MAC”?

#17: What are the major problem in centralized MACs?

#18: What are the two different types of distributed MACs?

#19: Mention an example for “token-based MAC”.

#20: Mention an example for “contention-based MAC”.

#21: Describe the procedure in CSMA contention-based MAC (the one used by IEEE 802.3 Ethernet).

#22: Describe the procedure in token-ring token-based MAC (the one used by IBM Token-Ring).

#23: **Technically** describe how packet collisions happen for IEEE 802.3 Ethernet using CSMA (“technically” means by referencing to the procedure of CSMA).

#24: What are the two major problems in IEEE-802.3 CSMA?

#25: What particular problem in CSMA does CSMA/CD solve and how?

#28: What is the major problem in CSMA/CD?