## 2 Routing in the Internet

Answer the following questions.

- 1. Briefly describe and explain the information in the IPv4 header used by Internet routing.
- 2. Compare "Encapsulation" (i.e., IP in IP) with IP loose-source routing option by presenting their pros and cons.
- 3. Explain the basic method for ICMP and IP to implement *route trace*. Give at least one other method for IP to implement *route trace*.
- 4. Explain the principle for the Internet to recover from black holes.