※ 考生請注意：本試題不可使用計算機。　請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

1. Describe the functions of default gateway and subnet mask, respectively. (15%)

2. Describe the main features of IPv6. Why has IPv6 adoption been so slow? (15%)

3. Describe in detail the responsibilities of the transport layer in the networking operations. (15%)

4. Assume you subscribe ADSL service with a listed download speed of 8 Mbps. When you make downloads, a measurement tool shows that you are receiving only 800 Kbps. What are the reasons of this apparent inconsistency? (15%)

5. Explain in detail the two application architectures: client-server, peer-to-peer. Compare the two architectures. (20%)

6. In practice, the WLAN or 802.11 technique uses unlicensed frequency bands (2.4 GHz and 5 GHz). In contrast, the 3G/4G wireless communication technique must use licensed frequency bands (900MHz/1800MHz/2200MHz). What are the possible reasons behind the above regulations? (20%)