

※ 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 in detail the mechanism of CSMA/CA and explain why it can solve the collision problem when multiple nodes want to access a wireless local area network. (15%)
2. Each computer attached to a TCP/IP Internet must know its own IP address. What are the IP addresses of other nodes to be known? Explain the reasons. (15%)
3. Describe in detail the responsibilities of the network layer for a TCP/IP network. (15%)
4. Compare the two technologies: circuit switch and packet switch (15%).
5. What is Internet of Things (IoT)? What are its possible applications? (20%)
6. In a Class B subnet, we know the IPv4 address of one of the hosts and the mask are 140.116.100.7 and 255.255.255.128, respectively. What is the first address (network address) and the last address (broadcast address) in this subnet? (20%)