

編號: E 419 系所: 電信管理研究所乙組

科目: 電腦網路概論

本試題是否可以使用計算機: 可使用, 不可使用 (請命題老師勾選)

1. We want to digitize and record a 10-minute human speech, which has frequency ranging from 100 Hz to 10 kHz. Assume that pulse coded modulation method is used in the sampling process. If each sample is stored using 16-bit memory, find the amount of RAM required to store the speech. (20%)
2. A TCP connection is using a window size of 10,000 bytes, and the previous acknowledgment number was 24,001. It receives a segment with acknowledgment number 27,001. Draw a diagram to show the situation of the window before and after. (20%)
3. What is the silly window syndrome? (10%)
What methods can prevent a silly window syndrome created at the receiver? (10%)
4. Describe the advantages of IPv6 over IPv4. (20%)
5. How many kinds of the error detection techniques you know? Please describe them in detail. (20%)