

系所組別： 電信管理研究所乙組

考試科目： 電腦網路概論

考試日期： 0306 · 節次： 3

※ 考生請注意：本試題 可 不可 使用計算機

1. Describe the following terms in detail: (a) TDMA (b) FDMA (c) CDMA (d) TDD (e) FDD. (20%)
2. What is the socket address? Describe its functions for data communications. (15%)
3. Please compare the two technologies: IPTV and Cable TV. (15%)
4. Describe the two technologies: circuit switch and packet switch. Please explain why, in practice, telecommunication systems adopt circuit switch and computer networks adopt packet switch. (15%)
5. Describe the principle of digital signature for network security. (15%)
6. We need to use synchronous TDM and combine 20 digital sources, each of 100 Kbps. Each output slot carries 1 bit from each digital source, but one extra bit is added to each frame for synchronization. Answer the following questions: (20%)
 - a. What is the size of an output frame in bits?
 - b. What is the output frame rate?
 - c. What is the duration of an output frame?
 - d. What is the output data rate?