

系所組別： 電信管理研究所乙組

考試科目： 通訊導論

考試日期：0223，節次：3

※ 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. Please explain the following terms in detail.

- (a)GPS (5%)
- (b)QAM (5%)
- (c)LTE (5%)
- (d)DWDM (5%)

2. Describe how the OFDM technology can be used to solve the ISI problem? (20%)

3. Please describe the characteristics of the following two fading types: (20%)

- (a) frequency-selective and slow fading
- (b) flat and fast fading.

4. Consider a bit stream 1011011100111010. What is the output sequence after a 4x4 block interleaver? (20%)

5. Describe in detail the relations among SNR, BER, throughput, and modulation scheme in a digital communication system (20%).