

通訊原理(一)

Quiz1

系級:

學號:

姓名:

1. (45%) Please draw a block diagram of a digital communication system.
2. (20%) According to North American Analog TV (NAA-TV) protocol, a picture is divided into 525 horizontal lines, which constitute a frame. Each frame is decomposed into two interlaced fields. The time taken for each field to be scanned is $1/60$ s. What is the line-scanning frequency and how many pictures are shown per second?
3. (20%) What is the main difference between source coding and channel coding?
4. (15%) *Describe* the algorithm of three-times repetition code decoder (hard decision). How many error bits can be error-freely corrected in a codeword?