

## CSE320

### Quiz - 04

**Name:**

**ID:**

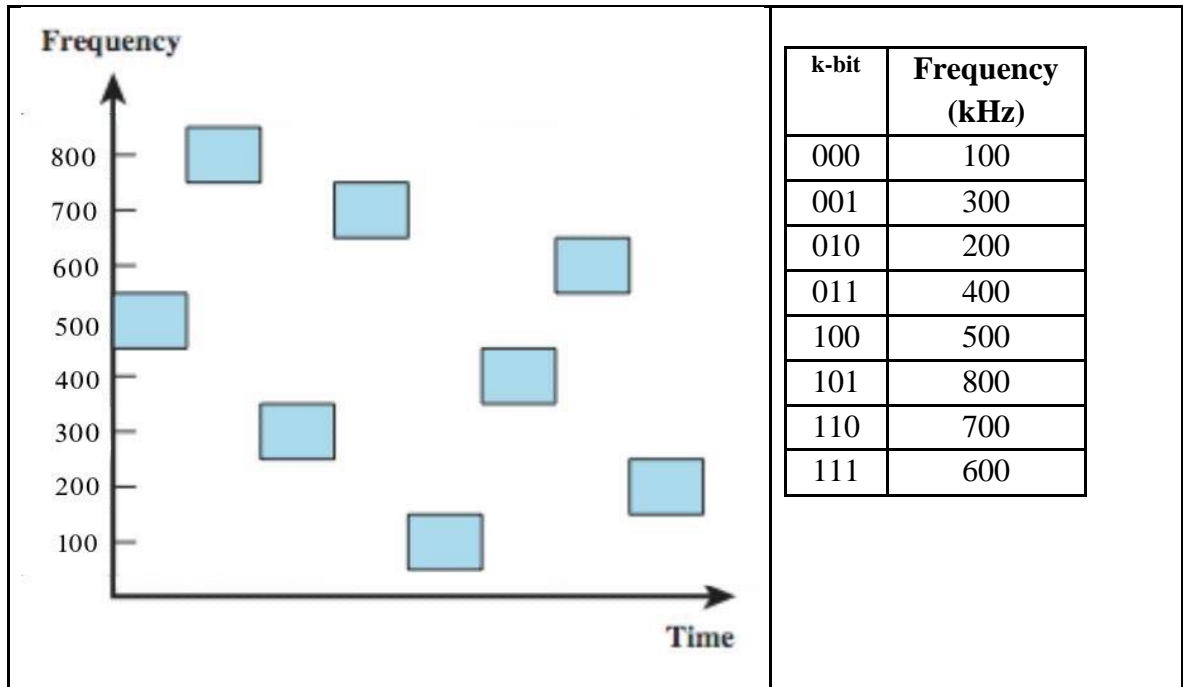
**Section:**

1. Suppose we have 10 sources, each creating 400 8-bit characters per second. Since only some of these sources are active at any moment, we use **statistical TDM** to combine these sources using **character interleaving**. Each frame carries 8 slots at a time, but we need to add 3-bit addresses to each slot.

[10]

Drawing one output frame, answer the following questions:

- I. What is the size of an output frame in bits?
  - II. What is the output frame rate?
  - III. What is the duration of an output frame?
  - IV. What is the output data rate?
  - V. What is the output bit duration?
2. Find the pseudorandom generator's **k-bit pattern** output to match the given FHSS cycle and the Frequency hopping table. [10]



3. Assume the following cases for a sender and a receiver device that use CRC for error control: [10]

- Dataword: 100110

- Generator: 1011

Show the sent **codeword** using **CRC binary division**.