

CSE320

Quiz - 04

Set - B

Name:

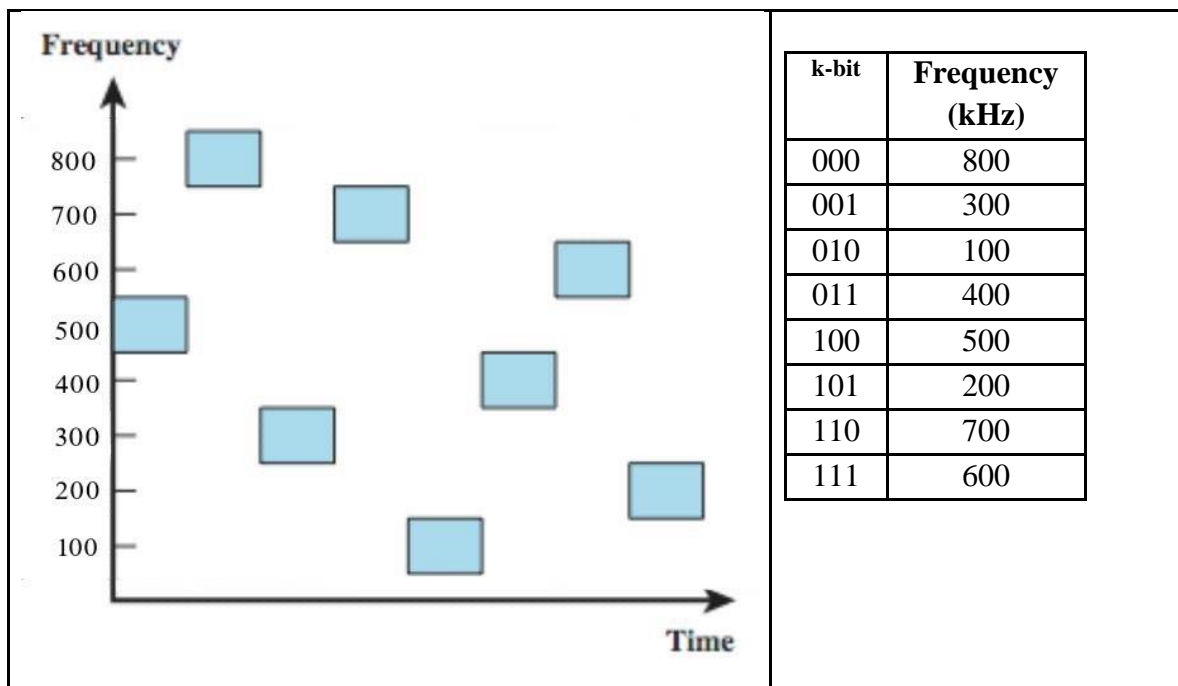
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Section:

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 **8-bits interleaving**. Each frame carries 8 slots at a time, but we need to add 4-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**.