

# **1 Instruction 3: Selection of exercises from Chapters 2, 3 and 4 of Kulkarni and Handout, Section 2**

**Theory:** paragraph 2.7

**Computational Problem:**

- 2.45 a) Let  $t_i$  ( $i = 0, 1, \dots, 7$ ) be the expected number of time slots before the buffer becomes empty, starting with  $i$  ( $i = 0, 1, \dots, 7$ ) packets in the buffer at the beginning of the first time slot. Give the set of equations from which  $t_i$  ( $i = 0, 1, \dots, 7$ ) can be calculated.
- b) Make the task as given in the text of this exercise in the book.

**Theory:** Handout, section 2

**Exercises:** 1,2

**Theory:** paragraphs 3.1, 3.2, 3.3

**Computational Problems:**

- 3.4 See the text in the book.
- 3.9 See the text in the book.
- 3.10 See the text in the book.

**Theory:** paragraphs 4.1, 4.2, 4.3

**Conceptual Problems:**

- 4.1 See the text in the book.
- 4.2 See the text in the book.
- 4.4 See the text in the book.
- 4.5 See the text in the book.
- 4.8 See the text in the book.
- 4.9 See the text in the book.