Modern Data Communications
Test Preparation

Cristian S. Calude

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1. Not a test of memorisation.
2. 30 questions (20 Cris, 10 Nevil) covering all material up to and including the lecture on the Monday before the test.
3. Each question has five answers, only one correct.
4. Questions carry 1 or 2 marks.
5. 2 marks questions require some calculation (working paper is provided).

All ASCII codewords have the same length, so ASCII

(a) is a prefix code.

(b) is not a code.

(c) has only 64 codewords.

(d) is an infinite code.

(e) is not uniquely decodable.

(a) Sardinas-Patterson algorithm determines whether a given variable-length code is uniquely decodable.

(b) Sardinas-Patterson algorithm determines whether a given infinite code is uniquely decodable.

(c) Sardinas-Patterson algorithm determines whether a given code is a prefix code.

(d) Sardinas-Patterson algorithm determines whether a given variable-length code is a prefix code.

(e) Sardinas-Patterson algorithm determines whether a given uniquely decodable code is not a prefix code.

The numbers 10, 3, 5:

(a) satisfy Kraft's inequality and the prefix code produced by Kraft's theorem is 000, 00100, 0010100000.

(b) satisfy Kraft's inequality and the prefix code produced by Kraft's theorem is 00, 0100, 10000000000.

(c) satisfy Kraft's inequality and the prefix code produced by Kraft's theorem is 100, 01000, 1000000000.

(d) satisfy Kraft's inequality and the prefix code produced by Kraft's theorem is 000, 01000, 0100000000.

(e) the numbers do not satisfy Kraft's inequality.