End-Semester Examination

Date: 4th May 2019
Time: 2:30 to 4:30 pm (2 hours)

Structure

Answer all questions on regular answer books. Each question will consist of a, b, c, d,…. which can be answered in one-line or in few-lines-to-detailed-answers. It can include short quiz-type questions (concept based), design, analysis, problems and derivations.

Printed copies of Smith Charts will be provided.

Scientific Calculator is required.

Weightage = 28%

Question 1 – VSWR, Standing Wave Patterns and Transmission Line of Finite Length.
Question 2 – ¼ Question will be based on concepts of Practical Transmission Lines
Such as Coaxial, Two-Wire and other lines.
¾ Question will be based on concepts of Transmission Line Theory (Smith Chart).
Question 3 – Transmission Line Theory (Smith Chart)
Question 4 - Transmission Line Theory (Transient Analysis)

Syllabus

From text book (e-book by William Hayt, John Buck-Engineering Electromagnetics), page numbers 323 to 354.
From reference book by Peter Rizzi, page 48 (only Fig. 2-24), pages 61 to 69, 73, pages 79 to 81 (only section 3-4b) and page 94 (only Fig. 3-16), 183 to 184, 192
From reference book by George Kennedy, Pages 194, 196, 197 and 206 to 210.
Smith chart examples 11.16 and 11.17.
Smith chart example 3.6.
Transient Examples 6.31 and 6.32
Reflection Coefficients and VSWR of selected loads