

NFTL ONLINE TEST

Email - Sunitasah2k7@gmail.com
Date: _____

Time : 2:30 Hours

M.M: 50

Note - Attempt all questions.

1. Answer any two parts: (2x5=10)

(a) Define two port Networks. What are Z , Y , and h parameters.

(b) Explain the difference between Symmetrical networks and Asymmetrical networks with neat figure.

(c) What are various types of networks. Explain h -parameter for CE transistor.

2. Answer any four parts: (4x3=12)

(a) Define attenuation. Also give units of attenuation.

(b) Show the various types of filters with neat diagram.

(c) Explain the series and parallel tuned circuit.

(d) Brief idea of the uses of filters networks in different communication systems.

(e) Explain prototype T and Π low pass filter section.

3. Answer any three parts. ($3 \times 4 = 12$)

(a) Define characteristic impedance, image impedance and iterative impedance.

(b) Show relation between Neper and Decibel.

(c) Illustrate the splitting of symmetrical 'T' sections into half sections.

(d) Define propagation constant and characteristic impedance for transmission line. Write the general expression in terms of line parameters R, L, G and C for sinusoidal excitation.

4. Answer any two parts: (2×4=8)

(a) Draw and explain the graphical representation of open and short circuit line. Hence, deduce the relationship of characteristics impedance $Z_0 = \sqrt{Z_{oc} Z_{sc}}$.

(b) Explain the concept of reflection and standing wave on a transmission line.

(c) Analysis and design of simple attenuator of symmetrical T type.

5. Answer any two parts: (2×4=8)

(a) Compare between wide band and narrow band filter.

(b) write short notes on Smith chart.

(c) write short notes on Equalizer.