

Total No. of Questions :5]

Roll No

EC - 505**B.E. V Semester**

Examination, June 2015

Communication Network And Transmission Lines**Time : Three Hours****Maximum Marks : 70**

- Note:** i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.
- ii) All parts of each questions are to be attempted at one place.
- iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.
- iv) Except numericals, Derivation, Design and Drawing etc.

Unit-I

1. a) What are symmetrical and asymmetrical two part networks?
- b) Explain the terms image impedance and iterative impedance.
- c) Explain about the image transfer coefficient and iterative transfer coefficient.
- d) Explain about Lattice and Bridge T networks.

OR

Explain about symmetrical and asymmetrical attenuators and also discuss about their designing.

Unit-II

2. a) Analyse the working of passive LC Low pass filter.
- b) Explain briefly about the passive LC band elimination filter.
- c) Explain about the m-derived T-network Low pass filter.
- d) Discuss the Butterworth approximation method for designing high pass filter.

OR

Discuss the Chebyshev approximation method for designing Bandpass filter.

Unit-III

3. a) Designing a lowpass π filter having a cutoff frequency of 1kHz to operate with a terminated load resistance of 200Ω .
- b) Determine the nominal characteristic impedance and cutoff frequency for the low pass filter shown in fig.1

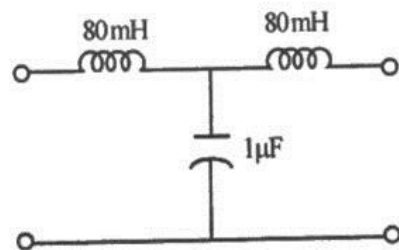


Fig 1

- c) Explain briefly about Foster and Cauer network.
- d) Explain about the Brune's method.

OR

Explain the Bott-Duffin method.

Unit-IV

4. a) What do you understand by the lumped parameter equivalent of transmission line.
- b) What is the function of phase equalizers.
- c) Discuss about the distortionless line.
- d) Discuss about reflection loss and insertion loss of the transmission line.

OR

Explain how to locate line fault.

Unit-V

5. a) Write a brief on the parameters of line and co-axial cable at radio frequency.
- b) What are dissipation less lines.
- c) How are standing waves formed? What is meant by standing wave ratio.
- d) Explain about eightwave, quarter-wave and half wave line.

OR

What is the need of stub matching? Explain about single and double stub matching.
