

Total No. of Questions : 8]

[Total No. of Printed Pages : 2

Roll No

EE/EX-221-CBCS

B.E. III Semester

Examination, June 2020

Choice Based Credit System (CBCS)

Network Analysis

Time : Three Hours

Maximum Marks : 60

- Note:** i) Attempt any five questions out of eight questions.
ii) All questions carry equal marks.
iii) Assume suitable data, if required.
1. a) Write an introductory note on RLC series circuit. Derive a relation for KLV.
b) Discuss the concept of linearity and time dependence in RLC series circuit.
 2. a) Draw and explain the circuit explaining the initial condition in RLC circuit.
b) Explain the concept of network graph. Discuss about the TREE, Branches and Links.
 3. a) State and prove Mesh Analysis with suitable example.
b) Draw and explain tuned circuits and series and parallel resonance.
 4. a) Explain the concept of Norton's analysis with the help of suitable circuit with relations.
b) State and prove Maximum Power Transfer Theorem with all their approachable derivations.

EE/EX-221-CBCS

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[2]

5.
 - a) Explain the concept of signal spectra. Discuss about the fourier series co efficient of a periodic waveform.
 - b) Discuss the integral differential equation taking any circuit in consideration.

6.
 - a) Draw and explain any circuit explains the trigonometric form of fourier series.
 - b) Explain the concept of poles and zeros condition in network.

7.
 - a) Explain the various necessary condition for driving point and transfer function? Explain.
 - b) Derive all the relations of ABCD parameter.

8. Write short notes on any four of the following:
 - i) Z Parameters
 - ii) Nodal Analysis
 - iii) KVL
 - iv) Incidence Matrix
 - v) Cut set and Tie set

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