Dr. Mahalingam College of Engineering and Technology, Pollachi-3

(An Autonomous Institution affiliated to Anna University)

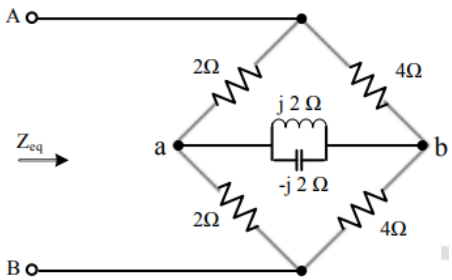
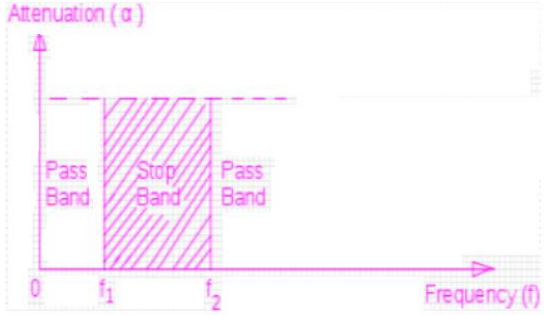
RETEST (2016 Regulation)

Name of Programme: **B.E - EEE**

Course Code & Course Title: **16EET44 – Networks and Signals**

Sem: IV Date & Session: 06.04.2018 Duration: 1½ hours Max. Marks: 50

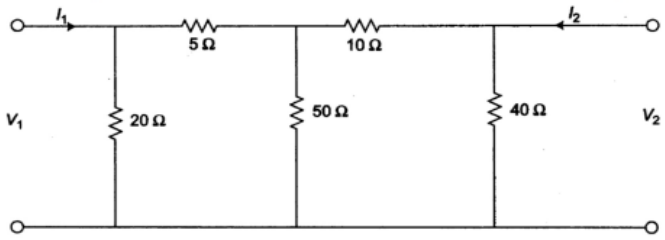
Part- A Objective Questions (10X1=10 Marks)

Q. No	Question	CO No	Blooms Level
1	If the two ports are connected in cascade configuration, then which arithmetic operation should be performed between the individual transmission parameters in order to determine overall transmission parameters? a) Addition b) Subtraction c) Multiplication d) Division	CO1	R
2	In the circuit shown in figure, the equivalent impedance seen across terminals A, B is  a) (16/3) Ω b) (8/3) Ω c) (16/8) Ω d) (8/3 + 12j) Ω	CO1	U
3	The roots of the odd and even parts of a Hurwitz polynomial P (s) lie on _____ a) right half of s plane b) left half of s-plane c) on jω axis d) on σ axis	CO2	R
4	In the first Foster form, the presence of first element capacitor C_0 indicates _____. a) pole at ω= 0 b) pole at ω= α c) zero at ω= 0 d) zero at ω= α	CO2	U
5	The propagation constant of a symmetrical T-section and π – section are the same. Say True/False	CO3	R
6	Identify the type of filter? 	CO3	U
7	Flipping is performed in _____. a) correlation b) convolution c) modulation d) regression	CO4	U
8	Time shifting of discrete time signal means a) y[n] = x[n-k] b) y[n] = x[-n-k] c) y[n] = -x[n-k] d) y[n] = x[n+k]	CO4	U
9	An example of a discrete set of information/system is a) the trajectory of the Sun b) data on a CD c) universe time scale d) movement of water through a pipe	CO4	U
10	_____ operation is not associated with the computation process of linear convolution. a) Folding b) Shifting c) Multiplication d) Integration	CO4	U

Part- B **Short Answer Questions** **(5X2=10 Marks)**

Q. No	Question	CO No	Blooms Level
11	List the uses of lattice network?	CO1	R
12	List the properties of RL Driving point function.	CO2	R
13	Check whether Z(s) = (S+3)/(S+2) is a positive real function.	CO2	U
14	Find the frequency at which prototype π-section low pass filter having a cut-off frequency fc has an attenuation of 20dB.	CO3	U
15	Find the auto correlation of x(n)={1 2 1}	CO4	U

Part- C **Descriptive – either or questions** **(2X15=30 Marks)**

Q. No	Question	CO No	Blooms Level
16. **(a)**	Find the Y Parameters of the network shown in figure. 	CO1	Ap
	OR		
16. **(b)**	The driving point impedance of an network is given by $Z(S) = \frac{10S^4 + 12S^2 + 1}{2S(S^2 + 1)}$ Obtain first and second Cauer form.	CO2	Ap
17. **(a)**	Design an m derived low pass filter(T and π Section) if it has a design resistance of 650Ω with a cut off frequency of 1500Hz with infinite attenuation frequency of 2000Hz.	CO3	Ap
	OR		
17. **(b)**	Find the linear convolution of the following using graphical and tabulation method. x(n)={1 2 3 4};h(n)={ 1,4,2,1}	CO4	Ap

Note:

Code for Blooms Levels:

Sl. No.	Blooms Level	Code
1	Remember	R
2	Understand	U
3	Apply	Ap
4	Analyze	An
5	Evaluate	E
6	Create	C

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