



Regulation R22

Subject code: S4E3EF (RA)

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech III Semester Supplementary Examinations, February 2024 Network Analysis (EEE)

Maximum Marks: 60

Date: 19.02.2024

Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 10 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10X1M=10 Marks)

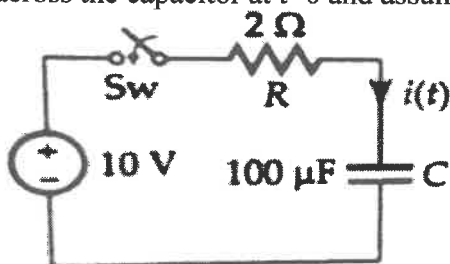
Q.NO	QUESTIONS	CO	Blooms Tx
1	Write about the initial condition of inductor	CO1	L1
2	Define steady state response	CO1	L1
3	Derive the laplace transform of impulse response	CO2	L1
4	What is initial value theorem	CO2	L2
5	Write the procedure for evaluating initial conditions	CO2	L1
6	Obtain the voltage across capacitor in laplace transform	CO2	L2
7	Define hybrid parameter.	CO3	L2
8	What is the function of filter?	CO3	L1
9	Define band rejection filter.	CO3	L2
10	Write symmetric condition for Z-Parameters?	CO3	L2

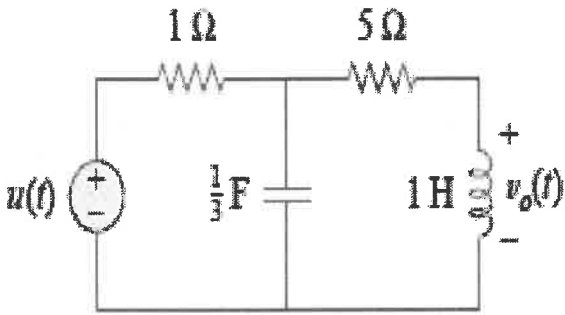
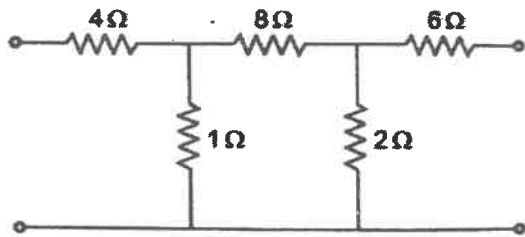
Part-B

Answer All the following questions.

(10M X 5=50Marks)

11	Obtain transient response for RL series circuit for step input.	10M	CO1	L3
OR				
12	Derive the Transient state response for Current in first order RC series circuit with sinusoidal excitation.	10M	CO1	L4
13	For the circuit shown in the figure, Obtain the current through and voltage across the capacitor at $t=0$ and assume the capacitor is initially discharged	10M	CO1	L3



	OR			
14	Derive the Transient state response for Current in first order RL parallel circuit with dc excitation.	10M	CO2	L3
15	Derive the Transient state response for Current in first order RL series circuit with impulse input.	10M	CO2	L3
	OR			
16	Define Laplace Transform and Find $v_o(t)$ in the circuit using Laplace transform.	10M	CO2	L4
				
17	Derive the condition of Symmetry for a two port Z and Y parameter.	10M	CO3	L4
	OR			
18	In the given network as shown in Fig. Find h – parameters and check the condition for symmetry and Reciprocity.	10M	CO3	L3
				
19	Explain about Low pass filter	10M	CO3	L3
	OR			
20	Explain the formula for characteristic impedance of symmetrical T-Network.	10M	CO3	L4