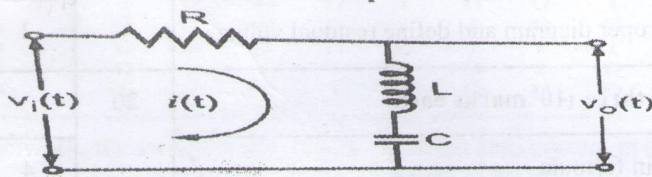


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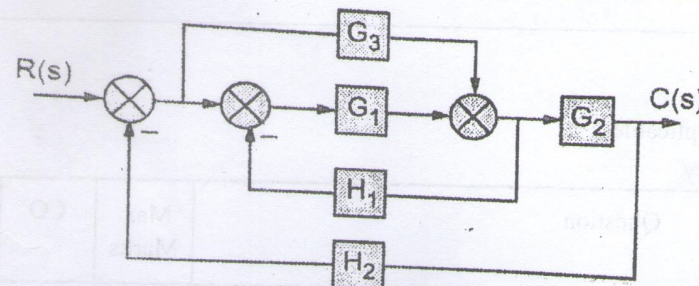
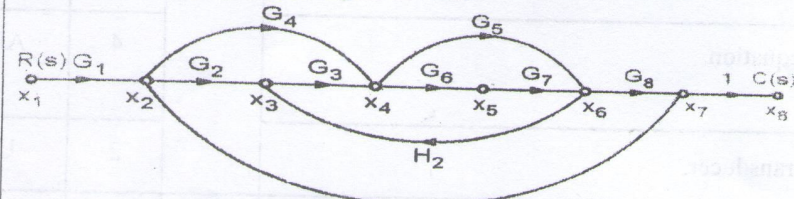
Nov - Dec 2024		
B. Tech Program: Electronics & Telecommunication Scheme III		
Regular Examination: SY Semester: III		
Course Code: EXC304 and Course Name: Electronics Instrumentation And Control System		
Date of Exam: 26/12/24	Duration: 02.5 Hours	Max. Marks: 60

Instructions:				
(1) All questions are compulsory.				
(2) Draw neat diagrams wherever applicable.				
(3) Assume suitable data, if necessary.				
Q. No.	Question	Max. Marks	CO	BT level
Q 1	Solve any two questions out of three: (05 marks each)	10		
a)	Find the transfer function of given network. 		6	AP
b)	Find the stability of given equation. $S^5 + 2S^4 + 3S^3 + 6S^2 + 10S + 15$		4	AP
c)	Write selection criteria of transducer.		2	U
Q 2	Solve any two questions out of three: (05 marks each)	10		
a)	Compare RTD, thermistor and thermocouple.		3	R
b)	Write steps for solving SFG.		5	U
c)	Write short note on calibration.		1	U
Q.3	Solve any two questions out of three. (10 marks each)	20		
a)	Find $C(s) / R(s)$ for given system.		3	AP

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b)	Derive an expression for Kelvin's double bridge with proper diagram.	1	U
c)	Explain LVDT in details with proper diagram and define residual voltage.	2	U
Q.4	Solve any two questions out of three. (10 marks each)	20	
a)	Find $C(s)/R(s)$ using Mason's gain formula	4	AP
			
b)	Sketch the root locus of unity feedback system with $G(s) = K/S(S+5)(S+10)$.	5	AP
c)	Explain thermocouple with its all types and its temperature ranges.	6	U
