Sanjay Ghodawat University, Kolhapur

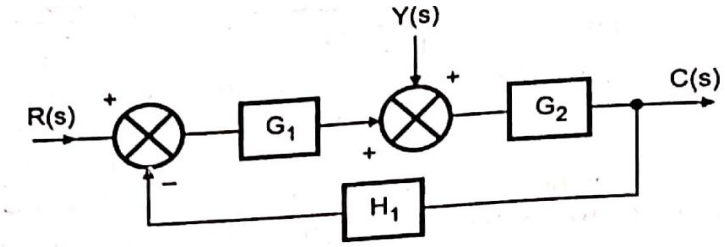
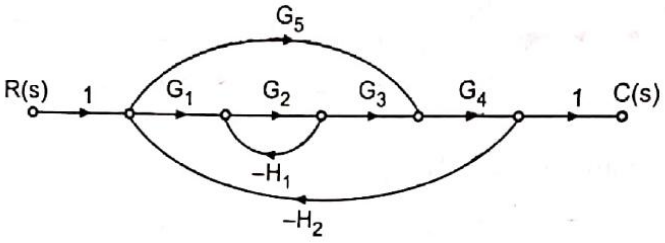
2020-21

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

EXM/P/09/00

Year and Program: 2020-21 TY BTech	**School of Technology**	**Department: Electrical Engg**
Course Code: ELE 302	**Course Title: Control System**	**Semester : VI**
Day and Date: Monday, 07/06/2021	**End Semester Examination**	**Time:2 Hrs. Max Marks:50**

Instructions: 1) All Questions are compulsory.

		Marks	Bloom's Level	CO
Q.1	**Answer/Solve the following (any Two)**			
a)	Describe feedback and feed forward system.	8	L3	CO1
b)	Obtain C(S)/R(S) for two inputs R(S) and Y(S) 	8	L2	CO1
c)	Find C(S)/R(S) using Mason's gain formula. 	8	L3	CO1
Q.2	**Answer/Solve the following (any two)**			
a)	Illustrate controller tuning using Zigler-Nichols Method.	8	L4	CO2
b)	Explain Proportional Integral Derivative (PID) control Mode in detail.	8	L3	CO2
c)	Derive the equation for steady state error(e_{ss}).	8	L3	CO3
Q.3	**Answer/Solve the following (any two)**			
a)	Solve the following equation using Routh-Hurwitz Criteria S^8+5S^6+2S^4+3S^2+1=0.	9	L3	CO3
b)	Explain effect of pole zero location on stability.	9	L4	CO3
c)	Elaborate the lead & lag compensation.	9	L3	CO4