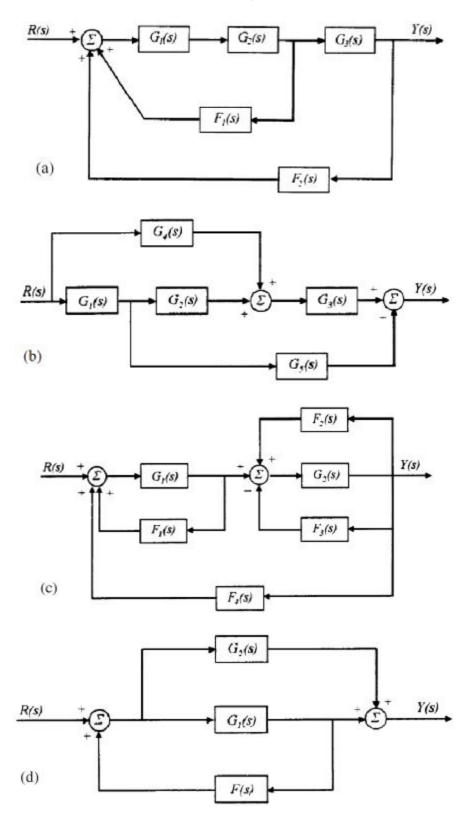
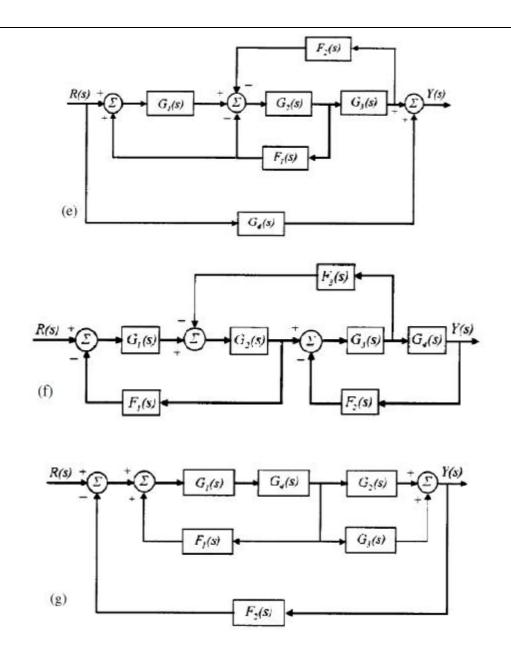


3<sup>rd</sup> year Computer Systems 1<sup>st</sup> Semester, 2015-2016 Subject: Automatic Control

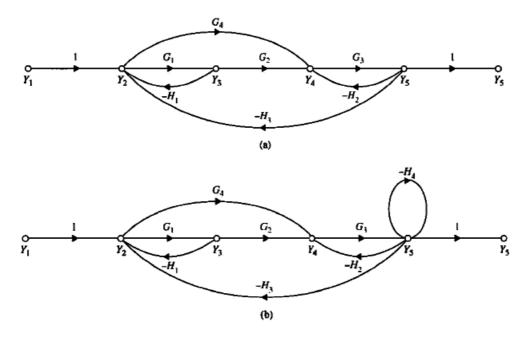
## **Sheet (4)**

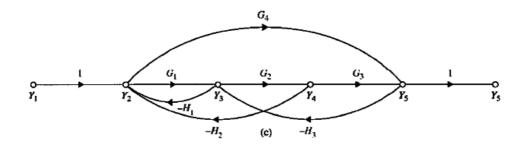
1- Draw the signal flow graphs of the following control systems and the Closed loop transfer function Y(s) / R(s) using Mason's rule.

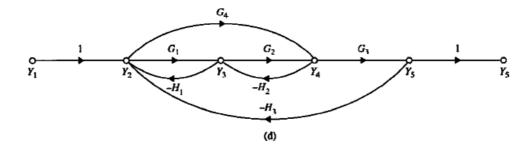


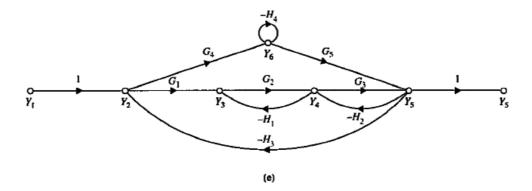


2- Apply the gain formula to the following signal flow graphs and find the over all transfer functions.

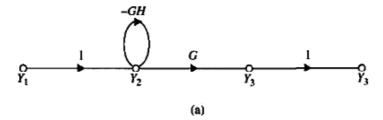


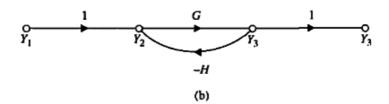






3- Show that the two systems shown in Figures (a) and (b) are equivalent.





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