

Total No. of Questions : 4]

SEAT No. :

PD-425

[Total No. of Pages : 2

[6409]-266

S.E. (Robotics and Automation Engineering) (In Sem.)

CONTROL SYSTEM ENGINEERING

(2019 Pattern) (Semester-IV) (211509)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates :

- 1) Solve Q.1 or 0.2 and 0.3 or 0.4.
- 2) Figure to the right indicates full marks.
- 3) Neat Diagram must be drawn wherever necessary.
- 4) Assume Suitable data if necessary.

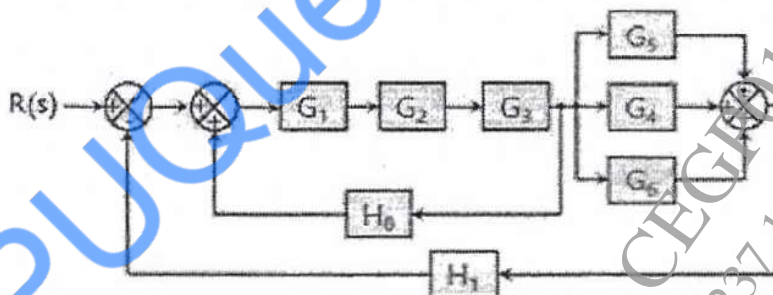
Q1) a) Define control system. Write down the types of control System. [8]

b) Write down the difference between open loop control system and close loop control system. [7]

OR

Q2) a) Define signal flow graph and its topologies. [8]

b) Find overall transfer function of control system using block diagram reduction method. [7]



P.T.O.

Q3) a) Consider unity feedback system with open loop transfer function $G(S) = 25 / S^2 + 8S + 25$. Determine time domain specification of closed loop system. [8]

b) Write short note on static error coefficient. [7]

OR

Q4) a) Write short note on PI, PD and PID controller. [8]

b) Write short note on Standard Test Signals. [7]

