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Course Code: CSE325

Quiz: 02

Section 65_F

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1. Derive the steady-state error for a unit ramp input and show that 3

$$e_{ss} = 1 / K_v$$

2. For the unity feedback system 5

$$G(s) = 5(s^2 + 2s + 100) / [s^2(s + 5)(s^2 + 3s + 10)]$$

(a) Static position error constant, Kp

(b) Static velocity error constant, Kv

(c) Static acceleration error constant, Ka

(d) Type of the system

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3. A unity feedback system has the open-loop transfer function 7

$$G(s) = K / [s(s + 20)]$$

Find the steady-state error for a unit ramp input when $K = 400$.