

BE/In Sem-29

Solution for In Sem Question Paper: BE 2012 Course

Control System – II (2015) (403145)

2015 Course

Q 3. B) $b_0 = 0, b_1 = 1, b_2 = 6$

$a_0 = 1, a_1 = 9, a_2 = 20$

$$A = \begin{bmatrix} 0 & 1 \\ -20 & -9 \end{bmatrix} \quad B = \begin{bmatrix} 0 \\ 1 \end{bmatrix}$$

$$C = [6 \quad 1] \quad D = [0]$$

Q 4. A) Eigen Values: -4, 1

$$\text{Eigen vector: } \begin{bmatrix} 0 \\ -3 \end{bmatrix} \quad \begin{bmatrix} 5 \\ -3 \end{bmatrix}$$

Q 5. A) Completely controllable & observable