04-May-2019

MECE 548 Midterm

Q1) =x. Find the state transition matrix Φ(t,t0)

Q2) The system representations are given

* =x+ y=x
* =k+, y=x

1. Are these systems zero-state equivalent. (Are their transfer function equal)
2. Are these systems equivalent. (Is there a transformation such that k=Tx such that T is a non singular matrix)

Q3)=x+. Find a values where this system is completely controllable