

NEUMANN SERIES

Q1. Solve the integral equation

$$y(x) = x + \lambda \int_0^x (x - \xi)y(\xi)d\xi, \quad (1)$$

using appropriate integral transform.

Q2. Solve the integral equation using Method of Successive Approximations and verify that the solution in the form of Neumann Series converges to the solution obtained in Q1.

“If you really want to do something, you’ll find a way. If you don’t, you’ll find an excuse.” — Jim Rohn.