1054-49-18   **Mostafa Ghandehari*** (`ghandeha@uta.edu`), Civil Engineering, Box 19308, Univ. of Texas at Arlington, Arlington, TX 76019, and **Khosrow Behbehani**. *An Optimal Control Problem in Pharmacokinetics.*

A system of ordinary differential equations for compartmental model of pharmacokinetics is used as an optimal control problem were the dosage is a control parameter. Pontryagin's maximum principle is applied to find optimal values of the dosage. Examples of compartmental medications are given. (Received July 09, 2009)