OSCILLATORY AND ASYMPTOTIC BEHAVIOR OF HIGHER ORDER NONLINEAR NEUTRAL DELAY DIFFERENCE EQUATIONS

S. LOURDU MARIAN\(^1\), M. RENI SAGAYA RAJ\(^2\),
A. GEORGE MARIA SELVAM\(^3\) AND P. MANOHARAN\(^4\)

\(^1\) Head, Department of Mathematics,
Rajiv Gandhi College of Engineering, Chennai, India
\(^2\) 3 4 Head, Department of Mathematics,
Department of Mathematics, Sacred Heart College, Tirupattur - 635 601, India

Abstract

In this paper, a class of higher order nonlinear neutral delay difference equation is considered. Some sufficient conditions for the oscillation and asymptotic behavior are derived.

Key Words : Oscillation, Neutral, Delay, Higher order, Difference equations.

2000 AMS Subject Classification : 39A10, 39A11.