

Oscillation criteria for third order neutral generalized difference equations with distributed delay

ABSTRACT

This paper aims to investigate the criteria of behaviour of certain type of third order neutral generalized difference equations with distributed delay. With the technique of generalized Riccati transformation and Philos-type method, some oscillation criteria are obtained to ensure convergence and oscillatory solution of suitable example is listed to illustrate the main result.

Keyword: Generalized difference operator; Oscillation; Non-oscillation; Converge to zero; Distributed delay; Riccati transformation