**ABSTRACT**

In this study an attempt has been made to synthesize some novel azetidinone derivatives in two schemes, where [scheme 1] and [scheme 2] involves two and three step respectively. In [scheme 1] dehydroacetic acid reacted with substituted aromatic amines by using microwave method to yielded Schiff bases [2a-g] which on cyclization with chloroacetyl chloride in presence of triethylamine furnished azetidinone derivatives [3a-g]. In [scheme 2] 3-acetyl-4-methoxy-6-methyl-2H-pyran-2-one [4] prepared by condensation of dehydroacetic acid with dimethyl sulphate in presence of dry acetone. Compound [4] reacted with substituted aromatic amines yielded Schiff bases [5a-g]. The cyclization of Schiff bases [5a-g] with chloroacetyl chloride in presence of triethylamine afforded methoxy azetidinone derivatives [6a-g]. The structures of the newly synthesized compounds have been established by TLC and spectral data. All newly synthesized azetidinone derivatives screened for their analgesic, anti-inflammatory, antibacterial, antifungal activities.

**Keywords:** Dehydroacetic acid, 2-azetidinones, Schiff bases, analgesic, anti-inflammatory activity.