CHAPTER 3

PLAN OF WORK

1. Literature Review
2. Procurement of materials
3. Synthesis of Prodrug

Scheme:

\[ \text{Mefenamic acid} \xrightarrow{\text{DCC, DMAP}} \text{Mefenamic acid amides} \xrightarrow{\text{R-OH/Ar-OH}} \text{Mefenamic acid ester} \]

Figure 1: Synthesis of Mefenamic acid derivatives

   i. Synthesis of Mefenamic acid amide derivatives
   ii. Synthesis of Mefenamic acid ester derivatives

4. Spectroscopic Study
   i. Fourier Transform Infra Red Spectroscopy
   ii. Nuclear Magnetic Resonance (NMR)
   iii. Mass Spectroscopy

5. Pharmacological Screening
   i. Anti-inflammatory activity.
   ii. Ulcerogenic study.

6. Pharmacokinetic Study
   i. Solubility study
   ii. Partition coefficient
   iii. Hydrolysis study