III. Aims and Objectives
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Present investigation has been undertaken in order to study the effect of medicinal plants on commonly occurring pathogens. Knowing the disadvantages of antibiotics, this is with a view to help us in having a wider perspective towards formulating anti-microbial therapy. This can be achieved by using commonly available plants such as those available in kitchen gardens, gardens, in the surroundings and as weeds.

PLAN OF WORK:

- Survey of medicinal plants, routinely in use, in and around Sangli district.
- Selection and authentication of medicinal plants under study.
- Collection of plant samples.
- Standardization of appropriate method for preparation of plant extracts.
- Isolation and identification of pathogens.
- Experiments to detect the anti-microbial effects of extracts of plants / plant parts against isolates and standard cultures.
- Study of the effective plant extracts with special reference to the isolates from wound infection in burns patients.
- Sensitivity study of the isolates, burns wound isolates and standard cultures to antibiotics.
- Determination of Minimum Inhibitory Concentrations of the effective extracts.
- Study of feasible processes for phyto-chemical analysis of the extracts.
- Qualitative phyto-chemical analysis of the extracts in order to find out their major components.
- Comparative analysis of effect of plant extracts and antibiotics on isolates, burns wound isolates and standard cultures.
- Analysis of effective plant extracts for their active components by HPTLC.
- Separation of the most effective plant extract into its components by TLC.
- Sensitivity study of the components in the effective plant extract isolated
by TLC, with special reference to the isolates from wound infections in burns patients.

- Analysis of the effective plant extract and TLC detected antimicrobially active components by IR spectroscopy.
- Analysis of the TLC detected antimicrobially active components of the effective plant extract by Gas Chromatography Mass Spectrometry (GCMS).