Work Plan and Methodology

- Review of literature related to bark of *Moringa oleifera*, stem of *Caesalpinia bonduc* and root of *Cordia dichotoma*
- The parts of plants will be collected, shade dried, and powdered. The powdered material will be subjected to successive solvent extraction with non-polar to polar solvents (Mukharjee, 2002).
- The extracts will be subjected for preliminary phytochemical investigation qualitative chemical tests (Khandelwal, 1994, Indian Pharmacopeia, 1996).
- To evaluate physico-chemical parameters for standardization of plant extracts (Indian Pharmacopeia, 1996).
- The extracts of plants will be evaluated for *in-vitro* anti-oxidant properties by
  - DPPH (1,1-diphenyl, 2-picryl hydrazyl ) radical scavenging activity
  - ABTS (2-azinobis(-3-ethylbenzothiazoline-6-sulphonate) radical cation decolourization assay (Shirwaiker, 2006)

- **Acute toxicity studies of extracts of plants** (OECD, 2002.)
  The acute oral toxicity study will be carried out of extracts which will shows antioxidant activity as per the guidance set by Organization for Economic Co-operation and Development (OECD) revised draft guideline 423 received from committee for the purpose of control and supervision of experiments on animals.

- The extracts of plants will be evaluated for antiulcer activity by
  - Ethanol induced ulcer model (Shirwaiker, 2006)
    Parameters to be studied for Antiulcer studies
      - Ulcer index
      - Aspirin + pylorus ligation induced ulcer model (Umamaheshwari, 2007)
    Parameters to be studied for Antiulcer studies
      - Ulcer index
      - Free acidity
      - Total acidity
For present study animals required will be procured from Smt.B.N.B. Swaminarayan Pharmacy College, Salvav, Gujarat (CPCSEA reg. no. 1276/a/09/CPCSEA)

- To elucidate the mechanism of antiulcer action of potent extracts.
- Preparation of formulation of extract and evaluation of formulation (Indian Pharmacopeia, 1996).