## SARDAR PATEL UNIVERSITY Programme: BSC (MICROBIOLOGY) Semester: III Syllabus with effect from: June 2012

| Paper Code: US03CMIC03                 | Total Credit: 3 |
|--|-----------------|
| Title Of Paper: Microbiology Practical | Total Credit: 5 |

| Unit | Description in detail  | Weighting (%) |
|------|--|---------------|
| 1    | Introduction to Laboratory apparatus.  |               |
| 2    | Cleaning, Neutralization and Preparation of glassware for sterilization.   |               |
| 3    | Disposal of Laboratory waste and media.  |               |
| 4    | Preparation of media and reagents – Nutrient broth, Preparation of normal and molar solution of HCL, NaOH and Sodium Citrate, Preparation of Phosphate Buffer. |               |
| 5    | Simple staining  |               |
| 6    | Demonstration of preparation of permanent slide  |               |
| 7    | Study of motility by hanging drop preparation  |               |
| 8    | Gram's staining  |               |
| 9    | Spirochete staining  |               |
| 10   | Cell wall staining   |               |
| 11   | Capsule staining.  |               |
| 12   | Endospore staining.  |               |
| 13   | Metachromatic granule staining.  |               |
| 14   | Micrometry.  |               |
| 15   | Streak plate method for isolation of bacteria.   |               |
| 16   | Spread plate technique for isolation of bacteria.  |               |
| 17   | Detection of Bacteriophage (spot test)   |               |
| 18   | Use of selective and differential media (MacConkey's and EMB agar medium   |               |
| 19   | Enumeration of microorganisms by Pour plate method.  |               |

Basic Text & Reference Books: -----

