SARDAR PATEL UNIVERSITY
B.Sc. FIRST SEMESTER
Core Course - Biology Practical
US01CBIO22 (P)
Effective from June 2018
2 Credits, 4 hours per week
External Marks -50 ; Exam duration: 2 hours

No	Title of the experiment
1	Electron Micrographs/Models of viruses –Bacteriophage, TMV/ Lytic and Lysogenic Cycle
2	Study of Bacteria from temporary/permanent slides
3	To study the structure of plant cell through temporary mounts (with the help of epidermal peel mount of Onion)
4	To study the structure of animal cells by temporary mounts-squamous epithelial cell(cheek cell)
5	Study of Cell and its organelles with the help of Electron micrographs
6	Structure of chromosome, its types and giant chromosomes.(photographs)
7	Study of cell division Mitosis(demo/permanent slides/chart)
8	Study of cell division Meiosis. (demo/permanent slides/chart)
9	Study of vegetative/ reproductive structure of *Volvox* through temporary preparation / permanent slides
10	Study of vegetative structure of *Rhizopus* through temporary mount and reproductive structure through permanent slides
11	Study of *Riccia* – Morphology of thallus, capsule/ sporophyte (all Permanent Slides)
12	Study of *Nephrolepis* – plant morphology, mounting of sporangia
13	Study of *Cycas* – Morphology, coralloid root, leaflet, male cone, megasporphyll (specimen/ P.S)
14	Examples based on Chargaff's rule
15	Qualitative tests for carbohydrates – Reducing sugars, Non reducing sugars and Starch
16	Qualitative tests for Protein (heat coagulation, Precipitation test, Biuret test, Folin's test)
17	Qualitative tests for Lipids
18	Classification of phylum Protozoa and Porifera, Coelenterata (Amoeba, Paramoecium, Euglena, Leucosolenia, Hyalonema, Euspongia, Hydra, Physalia, Aurelia, Sea anemone)
19	Classification of Helminthes and Annelida (Planaria, Liver Fluke, Hookworm, Ascaris, Earthworm, Nereis, Leech)
20	Classification of phylum Arthropoda (Peripatus, Millipede, Silverfish, Grasshopper, Cockroach, Butterfly, Crab, lobster,Spider)
21	Classification of Mollusca, Echinodermata and Hemichordata (Dentalium, Chiton, Pila, Unio, Octopus, Starfish, Brittle star, Feather star, Sea urchin, Sea cucumber, Balanoglossus)
22	Life cycle and pathogenicity of *Plasmodium vivax* and *Entamoeba histolytica*
23	Life cycle and pathogenicity of *Taenia, solium* and *Wuchereria bancrofti*
24	Field trip/project/submission