4. Culture of lymphocytes from blood samples.
5. Preparation of Hank's Balanced salt solution (BSS).
6. Culture of animal cells (embryo cells) on undefined media.

MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

B. Sc. BIOTECHNOLOGY II YEAR TDC (2016-17)

B. Sc. IInd Year Practicals

Practical – II

(A) Basics of Molecular Biology

1. Criteria for reliability of qualitative experiments.
2. Importance of clean handling, sterility and cleanliness.
3. Problems on gene, gene structure, chromosome, chromosome structure.
4. Isolation of total genomic DNA for plant sample.
5. Visualization of nucleic acids by agarose gel electrophoresis
6. Purification of plant genomic DNA by RNase treatment.
7. Quantification of plant genomic DNA and RNA by UV-spectrophotometer.
8. Demonstration of southern hybridization.
9. Amplification of DNA by PCR using RAPD and ISSR primers.
10. Preparation of protein samples for profiling on polyacrylamide gel.
11. Method of gel casting and sample loading for protein profiling through SDS-PAGE.
12. Running of gel, staining, destaining and analysis of protein profiles using standard protein markers.

(B) Immunology and Enzymology

1. To prepare blood film and observe various types of blood cells.
2. Formation of hemin crystals.
3. Determination of the clotting time of blood by capillary tube method.
4. Determination of the blood group.
5. Counting of the total RBC in the blood by haemocytometer.
6. Determination of kinetic properties (Km and V max values) of an enzyme.
7. Purification of enzymes by salt precipitation.
8. Immobilization of enzymes using different methods

9. Hapten conjugation and quantitation.
10. Demonstration of antigen-antibody reaction through clinical approach.
11. Immunodiagnostics (demonstration using kits)
12. ELISA
13. Double diffusion and Immuno-electrophoresis
14. Radial immunodiffusion
15. Purification of antigen, antibodies