SEMESTER – IV

MOLECULAR BIOLOGY & HORMONES

PRACTICAL

Programme: B.Sc. **Max. Hours: 45**
Course Code: U20/BIC/DSC/401/P **Hours per week: 3**
Course Type: DSC – 4 **Max. Marks: 50**
No. of credits: 1

Course objective:

Students with their knowledge on molecular biology techniques will be able to effectively apply them in the current research field after their master's.

Course Outcomes:

CO1: Apply the knowledge of different electrophoresis to separate DNA, RNA and protein molecules.

CO2: Enhance the skills of various molecular biology techniques.

CO3: Remember the importance of various Hormones.

PRACTICAL SESSIONS

1. Detection of HCG/TSH Hormone.
2. Estimation of DNA by DPA Method
3. Estimation of RNA by Orcinol Method
4. Isolation of DNA from Rice Leaves
5. Determination of Purity of Isolated DNA by UV Spectrophotometer
6. Isolation of DNA from Goat Liver
7. Electrophoresis of Standard DNA.
8. Restriction Digestion of DNA and their Size Determination.
9. Isolation of Plasmid
10. Separation of Proteins by SDS – PAGE
11. PCR (Demo)

MODEL QUESTION PAPER

PRACTICAL

Course Code: U20/BIC/DSC/101/P **Max Time: 2 Hrs**
Credits: 1 **Max. Marks: 50**

Answer the following

1.	Write the principles for the given experiments. a) b)	2 x 5 = 10 M
2.	Isolate DNA from Rice leaf/ Goat liver.	20 M
3.	Determine the Rf value for the standard and the unknown given in the image and determine the molecular weight for the protein sample	10 M
4.	Viva	5 M
5.	Record	5 M