Infrastructure / Facilities :

Sr. NO.	Name of Laboratory	Major Equipments	Experimental Setup
1.	Pharmaceutical Organic & Medicinal Chemistry	MP apparatus, steam distillation assembly, IR lamp, microwave oven, vacuum pump, hot plate, digital water bath, hot air oven, atomic model sets, magnetic and mechanical stirrers, water still etc.	Qualitative analysis of organic compounds by simple chemical tests. Quantitative analysis of organic compounds including natural products. Synthesis of drugs and drug intermediates. Experiments on drug design and QSAR.
2.	Pharmaceutical Inorganic Chemistry & Biochemistry	Colorimeter, pH meter, polarimeter, Abbe's refractometer, densitometer, centrifuge, triple beam balance, electric balance, prescription and platform balances, glass distillation assembly etc.	Qualitative and quantitative determination of impurities present in various inorganic compounds. Limit tests and other tests as per the monograph in pharmacopoeia. Pathological examination of urine, saliva, blood etc. Qualitative and quantitative determination of biomolecules.
3.	Pharmaceutical Analysis	HPLC, FTIR, spectrofluorometer, UV-visible spectrophotometer, photostability chamber, pH meter, conductometer, potentiometer, nephelo and turbidometer, electrophoresis, dropping mercury electrode polarograph, Karl-Fischer apparatus, electronic balances, rota-evaporator, etc.	Assay of drugs by instrumental and non-instrumental chemical methods. Analytical method development. Dissolution and plasma drug/metabolite profile studies. Degradation kinetics and stability studies.

Research projects/Expertise for Academic-Industry project collaboration:

1. Synthesis of drugs and their evaluation for antineoplastics, antioxidants, anti-aging, antifungal and anthelmintic activity.

2. Synthesis/modification of drug excipients and their application in pharmaceutical formulations.

3. Testing for potability of water.

4. Development and validation of analytical methods for bulk drugs, formulations and drugs and metabolites in biological fluids. (plasma, serum, urine etc.)

5. Synthesis, identification, characterization and standardization of impurities in bulk drugs.

6. Degradation kinetics studies of drug molecules.

7. Stability studies of drug molecules and formulations.