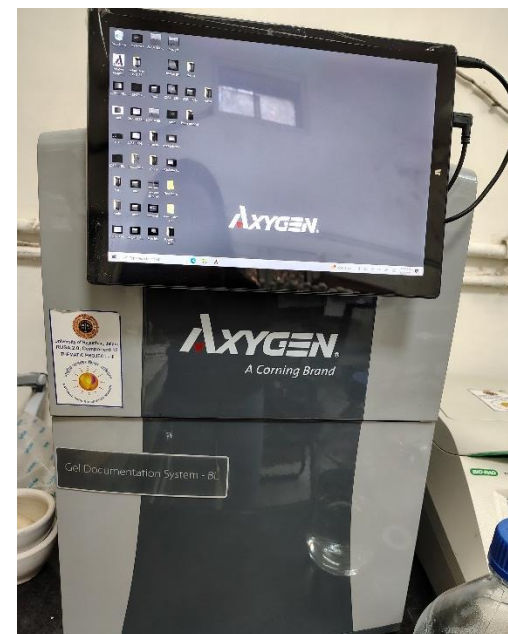


Major Instruments in Lab No. 9 of Botany Department

Name of Instruments	Brief Description of Instruments	Image of Instruments
Lab No. 9		
Gel Documentation System, Axygen, GDBL_1000	<p>Introduction: The Axygen GDBL_1000 Gel Documentation System is an imaging system designed for visualizing and analyzing nucleic acids and proteins in agarose and polyacrylamide gels.</p> <p>Principle: It operates on the principle of fluorescence or chemiluminescence detection, where UV or blue light excites the stained DNA/RNA/protein bands, which are then captured using a high-resolution camera.</p> <p>Applications: Used in molecular biology labs for gel electrophoresis imaging, DNA quantification, mutation analysis, and protein studies.</p>	 <p>The image shows the Axygen GDBL_1000 Gel Documentation System, a laboratory instrument used for imaging and analyzing gels. It features a large monitor displaying the Axygen logo and a desktop environment. The unit is black and white, with the Axygen logo and 'A Corning Brand' text prominently displayed. A label on the front reads 'Gel Documentation System - 80'. The system is situated in a laboratory setting, with various lab equipment and a water bottle visible in the background.</p>

Gradient PCR, Bio-Rad

Introduction: The Bio-Rad Gradient PCR is an advanced thermal cycler designed for optimizing DNA amplification by testing multiple annealing temperatures in a single run. It enhances efficiency and reproducibility in molecular biology experiments.

Principle: It follows the standard PCR process—denaturation, annealing, and extension—while utilizing a temperature gradient to determine the optimal annealing temperature for primers.

Applications: Used in gene amplification, cloning, mutation analysis, genetic studies, molecular diagnostics, and forensic research.

