

**BIOCHEMISTRY ELECTIVE PAPER  
SEMESTER VI**

**APPLIED BIOTECHNOLOGY**  
(Applicable from 2013)

**Unit 1: Enzyme Biotechnology**

Immobilized Enzymes

Biosensors

Enzyme Reactors: Stirred Tank Reactor, Membrane &  
Continuous Flow Reactor

Enzyme Engineering

**Unit 2: Food Biotechnology**

Fermented Foods- Probiotics

Single cell protein

GM foods

Use of Enzymes in Food industry

**Unit 3: Medical Biotechnology**

Recombinant vaccines

Disease Diagnosis & Treatment (Detection of genetic Disease,  
DNA finger printing, Tissue Engineering)

Gene therapy

**Unit 4: Environmental Biotechnology**

Bioremediation

Biocontrol

Biofertilizers

Xenobiotics & their degradation

SEMESTER – VI

BIOCHEMISTRY ELECTIVE 311B ENDOCRINOLOGY - HORMONES

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UNIT-1

INTRODUCTION TO HORMONES, ADRENARGIC RECEPTERS,

DIFFERENT MODELS OF HORMONE ACTION

UNIT-2

THYROID HORMONES AND PARATHYROID HORMONES , CHEMISTRY,BIOSYNTHESIS,

DISESES ASSOCIATED WITH THYROID DISORDERS,

UNIT-3

PANCREATIC HORMONES – CHEISTRY,BIOSYNTHESIS, DISESES ASSOCIATED WITH

PANCREATIC DISORDERS

UNIT-4

ADRENAL (CORTEX,MEDULA) AND GONADAL HORMONES – CHEISTRY,BIOSYNTHESIS,

DISESES ASSOCIATED WITH PANCREATIC DISORDERS