



**B. Sc. (MICROBIOLOGY) SEMESTER-III**  
**Paper-I**  
**(Chemistry of Organic Constituents and Enzymology)**

**UNIT-I**

Classification of Carbohydrates:

<https://youtu.be/FoswKE7tUH8?feature=shared>

Structure of Monosaccharides ( Glucose, Fructose, Galactose):

<https://youtu.be/DxnXrebWzpw?feature=shared>

Structure of Oligosaccharides (Lactose, Maltose, Sucrose)

<https://youtu.be/mNv4NemGQ5E?feature=shared>

Structure of Raffinose:

<https://youtu.be/LZ6mAtAszM?feature=shared>

Polysaccharides:

<https://www.youtube.com/live/rmKlBvAj5h0?feature=shared>

Structure of Homopolysaccharides (Starch, Glycogen, Cellulose):

<https://youtu.be/pvELQLYpKe0?feature=shared>

Structure of Heteropolysaccharide (Hyaluronic acids):

<https://youtu.be/5lwveE85zes?feature=shared>

Classification of Lipids:

<https://www.youtube.com/live/d3WkCvqkbhM?feature=shared>

Classification of Fatty acids:

[https://www.youtube.com/live/\\_zubf1pi32c?feature=shared](https://www.youtube.com/live/_zubf1pi32c?feature=shared)

Phospholipids and Glycolipids:

<https://www.youtube.com/live/7zXUwsNwjic?feature=shared>

[https://youtu.be/o\\_w8pmlLhdo?feature=shared](https://youtu.be/o_w8pmlLhdo?feature=shared)



## **UNIT-II**

Structures & Classification of Amino acids:

<https://youtu.be/OPAvXQsPCqQ?feature=shared>

Titration curve of amino acids:

<https://youtu.be/LCy0wDKfF8w?feature=shared>

Peptide bond theory:

<https://youtu.be/GiUldHAN2dk?feature=shared>

Secondary Structure of Proteins:

<https://youtu.be/FkjilyNaT3M?feature=shared>

<https://youtu.be/C3oNHHriqU?feature=shared>

Tertiary str. of proteins:

<https://youtu.be/N8R2WWIDkRM?feature=shared>

Quaternary structure. of proteins:

<https://youtu.be/RzeCb7q3t48?feature=shared>

Concept of Oligomeric Protein:

<https://youtu.be/jtTUSQeeu7U?feature=shared>

## **UNIT- III**

General features of Enzymes:

<https://www.youtube.com/live/XWHsLm6pF6k?feature=shared>



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Types & Classification of enzyme:

<https://youtu.be/WIG--e7OjiY?feature=shared>

Enzyme Inhibition:

<https://youtu.be/UostSikM888?feature=shared>

Types of enzyme inhibition:

<https://youtu.be/V8QRP2J4Q-s?feature=shared>

Enzyme Kinetics:

[https://youtu.be/F\\_N-Xf5BuUQ?feature=shared](https://youtu.be/F_N-Xf5BuUQ?feature=shared)

Enzyme kinetics LB Plots:

<https://www.youtube.com/live/fLczeBPe8Y8?feature=shared>

Enzyme Regulation:

<https://youtu.be/M9u3uf4KRkQ?feature=shared>

Membrane Bound Enzyme:

<https://youtu.be/WWSCd7Bouic?feature=shared>

Covalent Modulation:

<https://youtu.be/OYXJSsylon8?feature=shared>

Allosteric Modulators:

<https://youtu.be/DuSinQd9YhA?feature=shared>

Enzyme activity models (Lock and Key; Induced fit model):

<https://youtu.be/DmLOOq42fMc?feature=shared>



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### UNIT-IV

Nucleic acid Structure:

<https://www.youtube.com/live/LYjEJYGa83M?feature=shared>

Structure of DNA & RNA:

<https://youtu.be/0lZRAShqft0?feature=shared>

Forms of DNA:

<https://youtu.be/oUwMeiAbUzs?feature=shared>

Types of RNA:

<https://youtu.be/NO4is2HeoHI?feature=shared>

Vitamins & its types:

<https://www.youtube.com/live/NE5Q6IscyF4?feature=shared>

Hypovitaminosis:

<https://youtu.be/RxpeWalZL9Q?feature=shared>

Hypervitaminoses:

<https://youtu.be/YQ9zm7wK2fE?feature=shared>

Vitamin Deficiencies diseases:

<https://youtu.be/cFslt2ps634?feature=shared>