साहसे श्री: प्रतिवसति|

Akole Taluka Education Society’s,

**Agasti Arts, Commerce Dadasaheb Rupwate Science College, Akole**

Tal. Akole, Dist. Ahmednagar 422601

**Name of the Teacher:** Arun Lahanu Wakchaure **Department:** Chemistry

**Class:** M. Sc. (Organic Chemistry) Part- 1 **Pattern:** 2019 Pattern **Semester: I**

**Type of E- Content**: Google Classroom **Term: 1**

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| **Sr. No.** | **Title of course with code** | **Topic** | **Sub topic/ Key Words** | **Link** |
| 1 | CHG: 190 General Chemistry- I  Section- I Introduction to Chemical Biology- I | Chapter No.- 1Overview of Biochemical Concepts | Lecture No.- 1  Cell- Introduction | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzI5NTUzOTExMTE3/details> |
|  |  |  | Lecture No. 2  Cell shape, size & number, Difference between prokaryote & Eukaryotes | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzI5NTQ4OTM0Mjk1/details> |
|  |  |  | Lecture No.- 3  Eukaryotic cell part- A, Components, Fluid Mosaic Model | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzI5NTU1ODgzOTYy/details> |
|  |  |  | Lecture No.- 4  Eukaryotic cell Part- B | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzI5NTM5OTY5Mjc3/details> |
|  |  |  | Lecture No.- 5  Overview of cell metabolism, Catabolism & Anabolism reaction | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzI5NTU2NjUwMzE2/details> |
|  |  |  | Lecture No.- 6  Biomolecules of Potential Drug Targets | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzI5NTU2NjQ2NzI5/details> |
|  |  | Chapter No.- 2Chemistry of Biomembrane | Lecture No.- 7  Introduction, Function of Biomembrane | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzM1MTIwMTg2Mzg5/details> |
|  |  |  | Lecture No.- 8  Cell membrane, Composition of cell membrane, Types of models | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzM1MTIwOTEzMzU2/details> |
|  |  |  | Lecture No.- 9  Fluid Mosaic Model, Lipid Bilayer | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzM1MTI5MzcwMzkw/details> |
|  |  |  | Lecture No.- 10  Functions of cell membrane | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzM1MTE1MDA1Mzk3/details> |
|  |  |  | Lecture No.- 11  Transport- Active & Passive Part- A | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzM1MTI2MzU4OTcw/details> |
|  |  |  | Lecture No.- 12  Transport- Active & Passive Part- B, Endocytosis | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzM1MTI4MTAwNTkz/details> |
|  |  |  | Lecture No.- 13  Receptor mediated endocytosis, Properties of Biomembrane | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzM1MTMzMTgzMTI0/details> |
|  |  | Chapter No.- 4Lipids | Lecture No.- 14  Definition, Classification of lipids Part- A Simple lipids | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzM1NTkwNTEzMzAy/details> |
|  |  |  | Lecture No.- 15  Classification of lipids Part- B Compound lipids | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzM1NTkwODIxMjU0/details> |
|  |  |  | Lecture No.- 16  Classification of lipids Part- C Derived lipids | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzM1NTg4MjU0MzA2/details> |
|  |  |  | Lecture No.- 17  Fatty acids, Types of fatty acids | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzM1NTkwNTM4Njgz/details> |
|  |  |  | Lecture No.- 18  Properties of lipids, function of lipids | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzM1NTg5NjkzNzkw/details> |
|  |  |  | Lecture No.- 19  Characterization of lipids / fats, Lipoproteins | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzM1NTkwNzMyNjk4/details> |
|  |  | Chapter No.- 5Amino acids & Proteins | Lecture No.- 20  Amino acid- Introduction, Classification of amino acid | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzM2MDYxMTA5MzI2/details> |
|  |  |  | Lecture No.- 21  Properties of amino acid- A) Physical B) Chemical | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzM4MjMyNTgyNDQ1/details> |
|  |  |  | Lecture No.- 22  Role of amino acid | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzM4MjMzMzgwOTYw/details> |
|  |  |  | Lecture No.- 23  Proteins- Introduction, Peptide bond | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzMzODE3MjA0MTE4/details> |
|  |  |  | Lecture No.- 24  Classification of Proteins- Primary, Secondary proteins | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzMzODMxNjE1NDc3/details> |
|  |  |  | Lecture No.- 25  Classification of Proteins- Tertiary Proteins | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzMzODMyMjEyNzY1/details> |
|  |  |  | Lecture No.- 26  Properties of proteins- Physical & Chemical, Functions of Proteins | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzMzODMxOTgzMDE4/details> |
|  |  |  | Lecture No.- 27  Protein- Ligand interaction, Denaturation of proteins | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzMzODMyNTQ1MzQz/details> |
|  |  |  | Lecture No.- 28  Oligopeptide synthesis | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzM4NjU5OTQwNzQy/details> |
|  |  |  | Lecture No.- 29  Concepts of Proteomics | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzM4NjY5MjEzODc4/details> |

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**Name of the Teacher:** Arun Lahanu Wakchaure **Department:** Chemistry

**Class:** M. Sc. (Organic Chemistry) Part- 1 **Pattern:** 2019 Pattern **Semester: II**

**Type of E- Content**: Google Classroom **Term: 2**

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| --- | --- | --- | --- | --- |
| **Sr. No.** | **Title of course with code** | **Topic** | **Sub topic/ Key Words** | **Link** |
| 1 | CHG: 290 General Chemistry- II  Section- I Introduction to Chemical Biology- II | Chapter No.- 1Enzymes | Lecture No.- 1  Definition, Occurrence of enzymes | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzQ4NjU0NjMyNzQ1/details> |
|  |  |  | Lecture No. 2  Chemical nature of enzymes- Apoenzymes, Cofactor, Active site of enzymes | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzQ4NjUxMDc5OTIx/details> |
|  |  |  | Lecture No.- 3  Nomenclature of enzymes | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzQ4NjQwMjYyOTgy/details> |
|  |  |  | Lecture No.- 4  Classification of enzyme Part- A | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzQ4NjUwODA0ODAw/details> |
|  |  |  | Lecture No.- 5  Classification of enzyme Part- B | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzQ4NjUyMzU3MDQ3/details> |
|  |  |  | Lecture No.- 6  Properties of enzymes Part- A | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzQ4NjUxODI2MDMx/details> |
|  |  |  | Lecture No.- 7  Properties of enzymes Part- B | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzUxMTkxMjkyNDM3/details> |
|  |  |  | Lecture No.- 8  Regulatory & Non- regulatory enzymes | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzUxMjA4NDQ5NTc2/details> |
|  |  |  | Lecture No.- 9  Non- regulatory enzyme (continue part) | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzUxMjA3NjI0MTEw/details> |
|  |  |  | Lecture No.- 10  Role of enzymes, Formation of coenzyme, Mechanism of enzyme action | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzUxMjA1NTA1MDIz/details> |
|  |  |  | Lecture No.- 11  Lock- key theory of enzyme, Induced fit theory | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzUxMjA5NDg2NDM5/details> |
|  |  |  | Lecture No.- 12  Factors affecting enzyme activity | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzUxMjA3NzYwNDMw/details> |
|  |  |  | Lecture No.- 13  Activators & Inhibitors | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzUxNTk5MDY3Mjgw/details> |
|  |  |  | Lecture No.- 14  Enzyme kinetics- 1. MM equation (Michaelis- Menten Hypothesis) | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzUxNjAzNjM3NjUx/details> |
|  |  |  | Lecture No.- 15  Enzyme kinetics- 2. LWB equation (Lineweaver- Burk equation) | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzUxNjA0MDU2Njcz/details> |
|  |  |  | Lecture No.- 16  Allosteric enzyme, Industrial application of enzymes | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzUxNTkyOTAzNDE3/details> |
| 2 |  | Chapter No.- 2Nucleic acid | Lecture No.- 17  Introduction, Scope of Molecular Biology | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzQ5Nzg0NjA0ODQx/details> |
|  |  |  | Lecture No.- 18  DNA, Structure & Constituent of DNA | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzUyNjE2NTk1ODM5/details> |
|  |  |  | Lecture No.- 19  Chargaff’s rule | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzY0NjExOTAyMDAz/details> |
|  |  |  | Lecture No.- 20  Watson & Cricks Model of DNA, Types of DNA | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzY0NjAzNjM1MDM4/details> |
|  |  |  | Lecture No.- 21  RNA, Structure & Constituents of RNA | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzY0NjEyOTAxNjc3/details> |
|  |  |  | Lecture No.- 22  Types of RNA- m- RNA, t- RNA, r- RNA | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzY0NjA5NjA3OTYz/details> |
|  |  |  | Lecture No.- 23  DNA replication, Types of DNA replication | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzY0NjE0NTg2ODkz/details> |
|  |  |  | Lecture No.- 24  Transcription, Translation of DNA | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzY0NjE0MjM5ODk2/details> |
|  |  |  | Lecture No.- 25  Genetic code, Characterization of Genetic code | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzY0NjEzNjg0MDI1/details> |
| 3 |  | Chapter No.- 4Metabolism of Biomolecules | Lecture No.- 26  Definition, Metabolites, Types of Metabolites, Catabolism & Anabolism | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzY0NjMzMzEzNTkx/details> |
|  |  |  | Lecture No.- 27  Glycolysis, Glucose pathway | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzY0NjUwMDIxMzcz/details> |
|  |  |  | Lecture No.- 28  TCA Cycle / Krebs Cycle / Citric acid Pathway | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzY0NjUxNzU3NTQx/details> |
|  |  |  | Lecture No.- 29  Beta oxidation of fatty acid | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzY0NjUxOTA1NTMz/details> |
|  |  |  | Lecture No.- 30  Transamination of amino acid | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzY0NjUyODA0NDY0/details> |
|  |  |  | Lecture No.- 31  Urea cycle | <https://classroom.google.com/c/MjE1NTU4NTM2NDUw/m/MzY0NjUyNzMyNTEz/details> |