

COMMECS COLLEGE

Subject: Botany (Biology)

HOD: Ms. Sana Noman

Teacher/Prepared by: Ammar Zia & Yamna Rao

Macro Plan (2024-2025s)

Class: XI

| Start Date | End Date | Number of Periods | Topic/Chapter | Contents | Objectives By the end of the unit S.W.A.T.: |
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| FIRST TERM | | | | | |
| 01 Aug 2024 | 06 Sept 2024 | 13 | Chapter# 3 Cell structure & Functions | 1- Cell as basic unit of life, cell theory, Microscope 2-Techniques to Isolate Components of Cell. Prokaryote& Eukaryotes 3-Prokaryote& Eukaryotes 4-General Structure of Eukaryotic Cell 5-Cytoplasmic organelles & membrane system. 6-Non-membrane bond organelles 7-Key points 8-Exercise | 1-Create the interest by studying cell theory with the illustrated microscopic structures of the cell organelles. 2-Define the terms of Prokaryotes & Eukaryotes 3-Understand the general structure of cytoplasmic organelles. 4-Discuss the difference b/w non-membrane & membrane bounded organelles. |
| 06 Sept 2024 | 28 Sept 2024 | 08 | Chapter #04 Bioenergetics | 1-Need for energy in living organisms. 2-Reactants and Products of Photosynthesis with the role of chlorophyll 3-Process of Photosynthesis with the light dependent reaction 4-Formation of ATP with light dependent reaction. 5-Cellular respiration with the process of Glycolysis. 6-Kreb's Cycle 7-The process of Electron | 1-Determine the level of energy in the different phases of photosynthesis. 2-Understand both the processes of light reactions. 3-Comprehend the process of Glycolysis by which cellular respiration is done. 4-Describe the process of transportation of energy from ATP to the required places. 5-Understand that how |

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| 29 Sept 2024 | 12 Oct 2024 | 04 | Chapter #05 A-cellular Life | <p>Transport System. 8-Energy Flow Through the Ecosystem 9-The Efficiency of Energy flow 10-Key Points and exercise.</p> <p>1-Concept of Species 2- Hierarchy of Biological classification. 3-The five-kingdom system of classification 4-Viruses with characteristics, structure & classification</p> | <p>sunlight is used as a source of energy in the process photosynthesis. 6-Describe the trophic levels.</p> <p>1-Clearify the concept of discovered species in accordance with the classification.</p> |
| 14 Oct 2024 | 18 Oct 2024 | | First Term Examination | | |
| 21 Oct 2024 | 26 Oct 2024 | 02 | Paper Discussion & Individual problem solving. | | |
| | Total | 28 | Classes conducted (28) (Bot) 40.16% (Approx.) | | |
| 28 Oct 2024 | 09 Nov 2024 | 05 | Chapter #05 A-cellular Life (Continue) | <p>5-Life cycles of Bacteriophage 6-Viral diseases-HIV & AIDS 7- key points & Exercise</p> | <p>2-Distinguish the all five kingdoms with their characteristics. 3-Discuss different viral diseases.</p> |
| 09 Nov, 2024 | 06 Dec, 2024 | 11 | Chapter # 6 Prokaryotes | <p>1- Shapes, <u>Diversity & occurrences</u> 2-Nutrition in Bacteria 3- Growth, Respiration & Reproduction 4- Importance & control, Immunization & Vaccination. 5-Cyanobacteria with</p> | <p>1-Understanding the different cellular structures of bacteria. 2- understanding different types of bacteria. 3-Understand the importance of Immunization &</p> |

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| 09 Dec, 2024 | 20 Dec, 2024 | 04 | Chapter # 7 Protoctista & Fungi | <p>characteristics & Importance 6-Key points and Exercise</p> <p>1-Diversity among Protista with groups, Plant like Protista 2-Fungi like Protista 3-The body of Fungus with Nutrition 4-Reproduction in Fungi, Classification of Fungi. 5- Land adaptations of Fungi. 6-Economic Importance of Fungi. 7-Classification of Fungi. 8- Land adaptations of Fungi. 9-Economic Importance of Fungi. 10-Key Points & Exercise.</p> | <p>Vaccination. 4- understanding cyanobacteria and its importance.</p> <p>Define different botanical terms of plant and fungal like Protoctista. Make out the major points of all type Protoctista. Define the diversity of 3-type of Protista. Explain life cycles. Understand the land adaptation of Fungi. Describe the economic importance of Fungi. Understanding mode of reproduction in fungi</p> |
| 06 Jan 2025 | 11 Jan 2025 | | Second Term Examination | | |
| | Total | 20 | Classes conducted (20) (Bot) Term 29% -Total 69.34% (Approx.) | | |
| 20 Jan 2025 | 22 Feb 2025 | 11 | Chapter # 10 Form & Functions in Plants | <p>1-Autotrophic and Heterotrophic Nutrition 2-Special Mode of nutrition in plants 3-Mineral Nutrition 4-Gaseous Exchange in plants 5-Transport in plants 6-Water status in plants with osmotic potential 7-Water and minerals uptake by root</p> | <p>1-Describe the process of nutrition 2- Define respiratory system of Plants. 3-Explain different respiratory mechanisms in plants. 4-understand the water status in plants 5-understand water and minerals up taking by roots 6-comprehend</p> |

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| 24 Feb 2025 | 22 Mar 2025 | 10 | Chapter # 8 Diversity Among Plants | 8-Transpiration 9-Translocation of organic solutes 1-Classification of Plants with Bryophytes’ Characteristics & life cycle of Moss 2-Adaptations to Land Habitat & Three Divisions of Bryophytes. 3-Tracheophytes with major groups of vascular plants 4-Evolution of the Leaf 5- Lycopsidea 6-Evolution of Seed. 7-Sphenopsida, Pteropsida 8- Life Cycle of Fern. 9-Spermopsida: The Gymnosperm with the life cycle of Pine. 10-The Angiosperm 11-The Life Cycle of an Angiosperm 12-Vascular Plants as successful group of Land Plants. 16- Key Points & Exercise | translocation in plants 1-Define the main characteristics of adaptations to Land Habitat of lower plants. 2-Comprehend the evolution of vascular plants. 3-Make out that seed has the features of an embryo. 4- Comprehend the evolution of scular plants. 5-Make out that seed has the features of an embryo. 6-Understand the evolution of plants 7-Understand the comparisons among all Spermopsida. 8-Make out the difference b/w the life cycle of Angiosperm and Gymnosperm. 9-Define that successful group of Land Plants. |
| 07 Apr 2025 | 18 Apr 2025 | | Preliminary Examination | | |
| | Total | 21 | Classes Conducted (21) (Bot) Term 31% - Total 100% (Approx.) | | |

