

Govt. College, Ropar

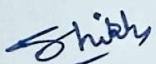
Department of Botany

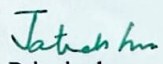
Class B.Sc. 1st Sem.

(Session 2022-2023)

| Week | Lesson scheduled |
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| 1 st | <ul style="list-style-type: none">➤ Viruses: General structure, Classification, Replication , Importance of viruses, A brief account of <i>Mycoplasma</i>➤ Class test |
| 2 nd | <ul style="list-style-type: none">➤ Bacteria- general account, Its ultra-structure, Classification, Mode of reproduction, A brief account of Archaeobacteria➤ Class test |
| 3 rd | <ul style="list-style-type: none">➤ Nutritional types in bacteria, Economic importance of Virus , General account of Cynobacteria, <i>Oscillatoria</i>➤ Class test |
| 4 th | <ul style="list-style-type: none">➤ General Characteristics of fungi, Classification, Economic importance <i>Phytophthora, Stemonitis</i>➤ Class test |
| 5 th | <ul style="list-style-type: none">➤ Important features and life history of <i>Physoderma, Mucor, Saccharomyces, Penicillium, Peziza</i>➤ Class test |
| 6 th | <ul style="list-style-type: none">➤ Important features and life history of <i>Ustilago, Agaricus, Cercospora, Colletotrichum</i>➤ Class test |
| 7 th | <ul style="list-style-type: none">➤ Lichens: Structure , Morphology, Reproduction, Economic importance➤ Revision |
| 8 th | <ul style="list-style-type: none">➤ MST |
| 9 th | <ul style="list-style-type: none">➤ MST |
| 10 th | <ul style="list-style-type: none">➤ Basic characteristics of algae, Classification, Economic importance➤ Class test |
| 11 th | <ul style="list-style-type: none">➤ Important features and life history of, <i>Volvox, Oedogonium, Vaucheria</i>➤ Class test |
| 12 th | <ul style="list-style-type: none">➤ Important features and life history of <i>Ectocarpus, Sargassum, Batrachospermum</i> |

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| | <ul style="list-style-type: none"> ➤ Class test |
| 13 th | <ul style="list-style-type: none"> ➤ Cell structure and reproduction in diatoms, General characteristics of Bryophytes, Classification, Ecological and economic importance ➤ Class test |
| 14 th | <ul style="list-style-type: none"> ➤ Structure, reproduction and affinities of <i>Anthoceros</i>, <i>Marchantia Funaria</i>, Evolution of sporophytes in bryophytes ➤ Class test |
| 15 th | <ul style="list-style-type: none"> ➤ General characteristics of Pteridophytes, Classification and economic importance, Evolution of stellar system ➤ Class test |
| 16 th | <ul style="list-style-type: none"> ➤ Important features and life history of <i>Rhynia</i>, <i>Selaginella</i>, <i>Equisetum Pteris</i>, <i>Marsilea</i> ➤ Revision and Class test |


 (SHIKHA CHAUDHARY)
 Head of Department


 Principal
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Class B.Sc. 2nd Sem.

(Session 2022-2023)

| Week | Lesson scheduled |
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| 1 st | <ul style="list-style-type: none">➤ Structural organization of cell: Prokaryotic and eukaryotic cell: Plant and animal cell.➤ Genetic inheritance; Mendelism; laws of segregation and independent assortment. |
| 2 nd | <ul style="list-style-type: none">➤ The cell envelop; structure, composition and function of cell in bacteria, fungi and plants➤ Linkage analysis; allelic and non-allelic interactions |
| 3 rd | <ul style="list-style-type: none">➤ Plasma membrane; structure and function; various methods proposed, fluid mosaic model; transport across membrane.➤ Mitosis and Meiosis |
| 4 th | <ul style="list-style-type: none">➤ Genetic material; structure of DNA and RNA, elucidation of DNA and RNA as genetic material.➤ Replication of DNA in prokaryotes and Eukaryotes |
| 5 th | <ul style="list-style-type: none">➤ Organisation of DNA in to chromosomes, nucleosome structure.➤ Transcription in prokaryotes and Eukaryotes |
| 6 th | <ul style="list-style-type: none">➤ Organisation of genetic material in eukaryotes, prokaryotes and viruses➤ Translation in prokaryotes and Eukaryotes |
| 7 th | <ul style="list-style-type: none">➤ Structure and function of nucleus; organization of nuclear membrane➤ Mutations and Transposable elements |
| 8 th | <ul style="list-style-type: none">➤ MST |
| 9 th | <ul style="list-style-type: none">➤ MST |
| 10 th | <ul style="list-style-type: none">➤ Nucleolus and chromosome➤ Chromosome alterations; deletions, duplications, translocations, inversions, variation in chromosome number-aneuploidy and polyploidy |
| 11 th | <ul style="list-style-type: none">➤ Structure and function of cell organelles; ER, Ribosome, Golgi body➤ A brief account of origin of earth, origin of life, History, Theories, Abiogenesis, Panspermia, chemical evolution |
| 12 th | <ul style="list-style-type: none">➤ Lysosomes, Vacoules and Peroxisomes➤ Oparin hypothesis, Miller's experiment, Evolution of progenote, protein evolution |

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| 13 th | <ul style="list-style-type: none">➤ Structure and function of Mitochondria➤ ,Theories of organic evolution, Detailed account on Lamarkism, Darwinism |
| 14 th | <ul style="list-style-type: none">➤ Plastids➤ Modern synthetic theory Germplasm theory and mutation theory, Evidences of evolution, Direct and indirect evidences; |
| 15 th | <ul style="list-style-type: none">➤ Semiautonomous nature➤ Fossils, fossilization, types and significance, GTS. Determination of age of rocks and fossils. |
| 16 th | <ul style="list-style-type: none">➤ Revision |

Shikha

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