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| Sr. no. | Week |  | topic |
| 1 | 1st  | 24-07-2023 to 29-07-2023 | Plant-water Relations: Importance of water to plant life; physical properties of water;  |
| 2 | 2nd  | 31-07-2024 to 05-08-2023 | Imbibition, Diffusion, Osmosis and Plasmolysis; absorption and transport of water; |
| 3 | 3rd  | 07-08-2023 to12-08-2023 | transpiration-types, physiology of stomata, factors affecting transpiration, importance of transpiration. |
| 4 | 4th  | 14-08-2023 to 19-08-2023 | Mineral Nutrition: Essential macro and micro elements and their role; mineral uptake; deficiency symptoms |
| 5 | 5th | 21-08-2023 to 26-08-2023 | Transport of Organic Substances: Mechanism of phloem transport; source-sink relationship; factors affecting translocation. |
| 6 | 6th  | 28-08-2023 to 02-9-2023  | Photosynthesis: Significance; historical aspects; photosynthetic pigments; action spectra and enhancement effects; concept of two photosystems; Z-scheme. |
| 7 | 7th  | 04-09-2023 to 09-09-2023 | ; photo-phosphorylation; Calvin cycle; C4 pathway; CAM plants; photorespiration |
| 8 | 8th  | 11-09-2023to 16-09-2023 | Respiration: ATP–the biological energy currency; aerobic and anaerobic respiration; Krebs cycle; electron transport mechanism (chemi-osmotic theory) |
| 9 | 9th | 18-09-2023 to 23-09-2023 |  redox -potential; oxidative phosphorylation; pentose phosphate pathway. |
| 10 | 10th  | 25-09-2023 to 30-09-2023  | Seed dormancy; plant movements; the concept of photoperiodism; physiology of flowering; florigen concept; physiology of senescence; fruit ripening. |
| 11 | 11th  | 02-10-2023 to 07-10-2023 | Introduction to Ecology: Definition; scope and importance; levels of organization. Environment: Introduction; environmental factors- climatic (water, humidity, wind, light, temperature) |
| 12 | 12th  | 09-10-2023 to 14-10-2023 |  edaphic (soil profile, physico-chemical properties), topographic and biotic factors (species interaction). |
| 13 | 13th  | 16-10-2023 to 21-10-2023 | Adaptations of plants to water stress and salinity (morphological and anatomical features of hydrophytes, xerophytes and halophytes). Population Ecology: Basic concept; characteristics; biotic potential, growth curves; ecotypes and ecads. |
| 14 | 14th  | 23-10-2023 to 28-10-2023 | Community Ecology: Concepts; characteristics (qualitative and quantitative-analytical and synthetic); methods of analysis; ecological succession. Ecosystem: Structure (components) and functions (trophic levels, food chains, food webs, ecological pyramids and energy flow) |
| 15 | 15th  | 30-10-2023 to 04-11-2023 | Biogeochemical Cycles: carbon and nitrogen; hydrological (water) cycle. Phyto-geography: Phyto-geographical regions of India; vegetation types of India (forests). |
| 16 | 16th  | 06-11-2023 to 09-11-2023 | Environmental Pollution: Sources, types and control of air and water pollution. |
| 17 | 17th | 10-11-2023 to 16-11-2023 | University vacations |
| 18 | 18th | 17-11-2023 to 25-11-2023 | Global Change: Greenhouse effect and greenhouse gases; impacts of global warming; carbon trading. |
| 18 | 18th | 27-11-2023 to09-12-2023 | Assignments and test, Queries of difficult topics |
| 19 | 19th  | 11-12-2023 to 16-12-2023 | revision |

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