

CLASS-10
PHYSICAL SCIENCE
UNIT PLAN
CHAPTER: 14 – CARBON AND ITS COMPOUNDS

| PERIOD NUMBER | CONCEPTS / TEACHING POINTS | PAGES IN TEXT BOOK | | REMARKS |
|---------------|---|--------------------|-----|---------|
| | | FROM | TO | |
| 1. | Carbon – valence – electron configuration - bonds | 302 | 304 | |
| 2. | Promotion of electron – Hybridisation sp^3 , sp^2 , sp hybridization(CH_4 , C_2H_4 , C_2H_2) | 304 | 308 | |
| 3. | Allotropes of carbon Amorphous, crystalline structures- Diamond | 308 | 309 | |
| 4. | Structure of graphite - uses | 309 | 310 | |
| 5. | C_{60} , bulky balls, nano tubes | 310 | 312 | |
| 6. | Versatile nature of carbon – wohler fredrich Catenation | 312 | 314 | |
| 7. | Hydro carbons Open and closed chains of hydrocarbons Saturated and unsaturated hydrocarbons | 314 | 315 | |
| 8. | Binding of carbon with other elements Functional groups | 316 | 318 | |
| 9. | Isomerism - homologous series Alkanes, alkenes and alkynes | 318 | 320 | |
| 10. | Nomenclature of organic compounds Suffix and prefix of carbon atoms Names and formulas of organic compounds | 320 | 323 | |
| 11. | Numbering of carbon atoms -Compounds ,formulas | 324 | 326 | |
| 12. | Chemical properties of carbon compounds Combustion, oxidation | 327 | 328 | |
| 13. | Chemical properties of carbon compounds Addition and substitutions | 328 | 329 | |
| 14. | Ethanol – manufacture – properties and uses | 329 | 330 | |
| 15. | Acetic acid – preparation – uses - Esterification | 330 | 332 | |
| 16. | Soaps – saponification and micelles Formation of micelle | 333 | 334 | |
| 17. | Cleaning action of soap | 334 | 336 | |