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| **unit** | **No. of lectures for the topic** | **Week of month allotted** |  |
| **2.1(a)** | **(10L)** |  | **Atomic Structure** |
|  |  | 1st week | Introduction, Rutherford’s Atomic model, limitations |
|  |  | 2ndweek | Bohr’s Theory, its limitations, advantages |
|  |  | 3rd week | Atomic Spectrum of hydrogen atom and Structure of hydrogen atom. |
|  |  | 4th week | Principles of quantum mechanisms |
|  |  | 1st week | Hydrogen energy levels, shell, subshell and orbital |
|  |  | 2ndweek | Electron spin |
|  |  | 3rd week | Radial shape of orbitals |
|  |  | 4th week | Radial distribution of function |
|  |  | 1st week | Angular shapes of orbital |
|  |  | 2ndweek | Effective nuclear charge, Aufbau’s principle |
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| 2.2 | (5L) |  | **Periodic Table & Periodicity** |
|  |  | 1st week | Introduction of periodic table |
|  |  | 2ndweek | Classificatin of elements |
|  |  | 3rd week | periodicity in the following properties: Atomic Size |
|  |  | 4th week | electron gain enthalpy, Ionization enthalpy |
|  |  | 1st week | Slater rule + Problems, electronegativity |
|  |  | 2ndweek | Pauling Method, Mulliken and Alred Rochow Method |
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