

ACADEMIC PLANNER & UNITIZATION OF SYLLABUS

Department of Chemistry

Bankura Christian College

ACADEMIC YEAR: 2023-24 (Semester 2nd /4th /6th)

2nd Semester (Hons) Theory (January,2023 to June, 2023)

Name of faculty member: Dr. BibekanandaMahanti

Subject: Chemistry

Core T3 - Inorganic Chemistry II

Unit – 1.

Extra nuclear Structure of atom

Bohr's theory, its limitations and atomic spectrum of hydrogen atom; Sommerfeld's Theory.

Unit – 2.

Wave mechanics: de Broglie equation, Heisenberg's Uncertainty Principle and its significance,

Schrödinger's wave equation, significance of ψ and ψ^2 **Unit – 3.**

. Quantum numbers and their

significance. Radial and angular wave functions for hydrogen atom. Radial and angular

distribution curves. Shapes of s, p, d and f orbitals. Pauli's Exclusion Principle,

Unit – 4.

Hund's rules and multiplicity, Exchange energy, Aufbau principle and its limitations, Ground state Term

symbols of atoms and ions for atomic number upto 30

| MONTH/YEAR | WEEK | PORTIONS |
|------------|-----------------|--|
| March 2023 | 2 nd | Extra nuclear Structure of atom Bohr's theory, |
| | 3 rd | Bohr's theory, its limitations |
| | 4 th | atomic spectrum of hydrogen atom; Sommerfeld's Theory |
| | 5 th | Class Test-1/ Revision of Unt-1 |
| April 2023 | 1 st | Wave mechanics: de Broglie equation, |
| | 2 nd | , Heisenberg's Uncertainty Principle and its significance, |
| | 3 rd | Schrödinger's wave equation, significance of ψ and ψ^2 |
| | 4 th | Class Test-2 |
| May 2023 | 1 st | Quantum numbers and their significance |
| | 2 nd | Radial and angular wave functions for hydrogen atom. Radial and angular distribution curves. |
| | 3 rd | Shapes of s, p, d and f orbitals |
| | 4 th | Revision of Unt-3 |
| June 2023 | 1 st | Hund's rules and multiplicity, Exchange energy, Aufbau principle and its limitations, |
| | 2 nd | Ground state Term symbols of atoms and ions for atomic number upto 30 |

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| | 3 rd | Class Test-3 |
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