

## DrGenius Acadmey An Online Platform for Aspirants DSSSB (PGT) | SYLLABUS

Website :- www.drgenius.academy | Contact +91 9636280355, 9358816794 | Email:- helpdesk@drgenius.academy

## **SYLLABUS**

## Chemistry

- 1. Basic concepts of chemistry.
- 2. States of matter.
- 3. Structure of Atom.
- 4. Equilibrium.
- 5. Surface chemistry.
- 6. Chemical Kinetics.
- 7. Redox reaction and electrochemistry.
- 8. Solutions.
- 9. Chemical Bonding and Molecular Structure.
- 10. Thermodynamics.
- 11. Classification of elements.
- 12. Hydrogen.
- 13. General principles and processes of isolation of elements and s, p, d, f-block elements.
- 14. Coordination compounds and organometalics.
- 15. Hydrocarbons.
- 16. Aromatic Hydrocarbons.
- 17. Haloalkanes and haloarenes.
- 18. Alcohols, phenols and ethers, acids, amines, and polymers.
- 19. Chemistry in everyday life—Drugs and Medicines.

20. Stability Constants of Metal Complexes and their applications. 21. Supramolecular and photo-inorganic chemistry.

- 22. Group Theory and its applications.
- 23. Chemistry of D-

and F Block Elements.

- 24. Inorganic reactions mechanism.
- 25. Catalysis and Bio-Inorganic Chemistry.
- 26. Inorganic rings, cages, and metal cluster compounds.
- 27. Introduction to the solution of multi-electron problems.
- 28. Nano Chemistry.
- 29. Spectral Techniques.
- 30. Organo transition metal chemistry.
- 31. Bio-Inorganic Chemistry.
- 32. Analytical Techniques.
- 33. Materials/Nuclear and Radio-Chemistry.
- 34. Green Chemistry: An Interdisciplinary Approach Towards Sustainable Developments.



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- 35. Reactive intermediates in organic chemistry.
- 36. Stereochemistry of Organic Compounds.
- 37. Spectroscopy of Organic Compounds.
- 38. Reagents and Methods of Organic Synthesis. Lanthanide shift reagents.
- 39. Photochemistry and pericyclic reactions.
- 40. Medicinal Chemistry.
- 41. Chemistry of life processes and bioactive compounds.
- 42. Polymer Chemistry and Processing and the role of Catalysis synthesis.
- 43. Advanced Organic Synthesis.
- 44. Supra Molecular Chemistry and Carbo Cycling Rings.
- 45. Terpenes and steroids/alkaloids and polyphenols.
- 46. Newer synthetic reactions and reagents/heterocycling chemistry.
- 47. Bio-Molecules.
- 48. Pharmaceutical Techniques/Technology Development.
- 49. Quantum Chemistry.
- 50. Statistical Mechanics and Thermodynamics.
- 51. Electrochemistry.
- 52. Kinetics and Macromolecules.
- 53. Molecular Structure: Spectroscopic and diffraction methods.
- 54: Irreversible Thermodynamics.
- 55. Transport Phenomenon, Surface Phenomenon, and Past Reactions.
- 56. Statistical Mechanics Advanced Electrochemistry, Photochemistry & Radiation Chemistry.
- 57. Computational Methods.
- 58. Quantum Chemistry.
- 59. Chemical Kinetics.
- 60. Molecular Spectra.
- 61. Crystal Structure.
- 62. Macromolecules.
- 63. Bio-Physical Chemistry.
- 64. Physical Chemistry of Materials.
- 65. Surface Chemistry.
- 66. Metal ion catalysis.
- 67. Convention ceramics/technical ceramics.
- 68. Basic concept of crystallography and crystal structure.
- 69. Chemistry of advanced material/natural products.
- 70. Nuclear, Analytical, Solid State Chemistry.



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**Teaching Education and Methodology** 

- 1. Learning & Teaching
- 2. Language across the curriculum
- 3. Understanding discipline and subject
- 4. Gender school and Society
- 5. Pedagogy of a school subject
- 6. Knowledge and curriculum
- 7. Assessment for learning
- 8. Creating an inclusive school
- 9. Childhood and growing up
- 10. Drama and Art in Education

