

50 NEET Chemistry Most Expected Questions for 2026

Physical Chemistry (Calculation & Logic)

1. Calculate the number of atoms in 0.5 moles of a triatomic gas.
2. The radius of the second Bohr orbit for Li^{2+} ion.
3. Determine the empirical formula of a compound with 20% Calcium and 80% Bromine by mass.
4. Calculate the work done in an isothermal reversible expansion of an ideal gas.
5. The relationship between K_p and K_c for the reaction: $\text{N}_2(\text{g}) + 3\text{H}_2(\text{g}) \rightleftharpoons 2\text{NH}_3(\text{g})$.
6. Finding the pH of a 10^{-8} M HCl solution (The common ion effect of water).
7. Calculate the molar solubility of AgCl in 0.1 M NaCl given K_{sp} .
8. Calculation of packing efficiency in a Body-Centered Cubic (BCC) lattice.
9. Relative lowering of vapor pressure when a non-volatile solute is added to a solvent.
10. The time required for a first-order reaction to complete 99.9% of the reaction.
11. Applying Faraday's First Law of Electrolysis to find the mass of Copper deposited.
12. Variation of molar conductivity with concentration for strong vs. weak electrolytes.
13. Finding the order of reaction from a given rate law and units of k.

14. Calculate the activation energy using the Arrhenius Equation graph.
15. Osmotic pressure calculation for a protein solution (Van't Hoff factor application).

Inorganic Chemistry (Trends & Bonding)

16. The correct order of increasing ionic radii for isoelectronic species: N^{3-} , O^{2-} , F^- .
17. Comparison of bond angles in NH_3 , PH_3 , AsH_3 (Drago's Rule application).
18. Hybridization and geometry of XeF_4 and XeF_2 .
19. Which molecule has a non-zero dipole moment: BF_3 , BeCl_2 , NH_3 , CCl_4 ?
20. Identifying the most basic oxide among the Group 2 elements.
21. The "Inert Pair Effect" and its impact on the stability of Pb^{2+} vs Pb^{4+} .
22. Calculation of "Spin-only" magnetic moment for Fe^{2+} .
23. Why is Sc^{3+} colorless while Ti^{3+} is colored in aqueous solution?
24. IUPAC name of the coordination compound $[\text{Co}(\text{NH}_3)_5\text{Cl}]\text{Cl}_2$.
25. Ambidentate ligands and their role in linkage isomerism.
26. The structure of Diborane (B_2H_6) and the nature of the banana bond.
27. Trends in electronegativity and electron gain enthalpy across the second period.
28. Identifying the diamagnetic species among O_2 , O_2^+ , O_2^{2-} .
29. The composition of "Syngas" and its industrial preparation.
30. The role of Cryolite in the metallurgy of Aluminum.

Organic Chemistry (Mechanisms & Reactions)

31. Identifying the most stable carbocation among primary, secondary, and tertiary.
32. The IUPAC name of $\text{CH}_3\text{-CH(OH)-CH}_2\text{-CHO}$.
33. Product of the reaction between Propene and HBr in the presence of Peroxide.
34. Identifying the major product in the Nitration of Aniline in acidic medium.
35. The Reimer-Tiemann reaction: Product formed when Phenol reacts with $\text{CHCl}_3/\text{NaOH}$.
36. Distinction between Aldehydes and Ketones using Tollens' Reagent.
37. The mechanism of $\text{S}_\text{N}2$ reaction and why it leads to inversion of configuration.
38. Which of the following undergoes Aldol Condensation: Formaldehyde or Acetaldehyde?
39. The acidity order of Carboxylic acids with electron-withdrawing groups.
40. Gabriel Phthalimide Synthesis: Why is it preferred for primary aliphatic amines?
41. Identifying the monomer of Teflon and Neoprene.
42. The difference between DNA and RNA (Sugar moiety and Nitrogenous bases).
43. Linkage present in Amylopectin (α -1,4 and α -1,6 glycosidic bonds).
44. Test for unsaturation: Bromine water test vs. Baeyer's Reagent.
45. Clemmensen Reduction: Reagents used to convert C=O to CH_2 .
46. The product of HVZ (Hell-Volhard-Zelinsky) reaction.
47. Identifying an aromatic compound using Huckel's Rule ($4n+2\pi$ electrons).

48. The effect of resonance on the stability of Benzylic halides.
49. Lucas Test: Identifying 1°, 2°, and 3° alcohols based on turbidity time.
50. Classification of drugs: Antipyretics vs. Analgesics examples.