

Applied Chemistry-A: VVI Questions

1	<p>Unit-1: Atomic Structure & Bonding</p> <p>Hund's rule,</p> <p>Pauli's exclusion,</p> <p>Rutherford, Quantum number,</p> <p>Aufbau's principle.</p> <p>Covalent, co-ordinate,</p> <p>Hydrogen bonds.</p> <p>De-Broglie,</p> <p>Heisenberg.</p> <p>Electronic configuration: Fe, Cr, Cu, Zn, Sc.</p>
2	<p>Unit-2: Water & Its Treatment</p> <p>Hardness (types),</p> <p>EDTA method, BOD, COD,</p> <p>Unit of hardness,</p> <p>Soda-lime process,</p> <p>Water sources.</p>
3	<p>Unit-3: Metallurgy & Polymers</p> <p>Extraction: Fe, Cu, Al. Vulcanization of rubber.</p> <p>Monomers: Teflon, Nylon 6-6, Nylon 6</p> <p>Dacron, Neoprene, Terylene,</p> <p>Orlon. Alloy (purpose).</p> <p>Differences: Calcination/roasting,</p> <p>Addition/condensation polymerization,</p> <p>Thermoplastic/thermosetting,</p> <p>Natural/synthetic rubber.</p>
4	<p>Unit-4: Fuels & Lubricants</p> <p>Calorific values (HCV, LCV).</p> <p>Ideal fuel characteristics.</p> <p>Short notes: Octane/Cetane number,</p> <p>Viscosity/index,</p> <p>Flash/fire point,</p> <p>Cracking/knocking.</p> <p>Lubricants (classification).</p> <p>LPG, CNG, BIO GAS.</p>
5	<p>Unit-5: Electrochemistry</p> <p>Faraday's law</p> <p>, Kohlrausch's law</p> <p>, Nernst's equation,</p> <p>Molar conductivity.</p> <p>Differences: Electrolytic/metallic conduction,</p> <p>EMF/potential difference,</p> <p>Galvanic/electrolytic cell.</p> <p>Short notes: Strong/weak electrolyte,</p> <p>Dry cell, Fuel cell.</p> <p>Lead storage battery (charging/discharging).</p> <p>Electrode potential.</p>