

Applied Chemistry-A: VVI Questions

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Unit-1: Atomic Structure & Bonding

Hund's rule,
Pauli's exclusion,
Rutherford, Quantum number,
Aufbau's principle.
Covalent, co-ordinate,
Hydrogen bonds.
De-Broglie,
Heisenberg.

Electronic configuration: Fe, Cr, Cu, Zn, Sc.

2

Unit-2: Water & Its Treatment

Hardness (types),
EDTA method, BOD, COD,
Unit of hardness,
Soda-lime process,
Water sources.

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Unit-3: Metallurgy & Polymers

Extraction: Fe, Cu, Al. Vulcanization of rubber.

Monomers: Teflon, Nylon 6-6, Nylon 6

Dacron, Neoprene, Terylene,

Orlon. Alloy (purpose).

Differences: Calcination/roasting,

Addition/condensation polymerization,

Thermoplastic/thermosetting,

Natural/synthetic rubber.

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Unit-4: Fuels & Lubricants

Calorific values (HCV, LCV).

Ideal fuel characteristics.

Short notes: Octane/Cetane number,

Viscosity/index,

Flash/fire point,

Cracking/knocking.

Lubricants (classification).

LPG, CNG, BIO GAS.

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Unit-5: Electrochemistry

Faraday's law

, Kohlrausch's law

, Nernst's equation,

Molar conductivity.

Differences: Electrolytic/metallic conduction,

EMF/potential difference,

Galvanic/electrolytic cell.

Short notes: Strong/weak electrolyte,

Dry cell, Fuel cell.

Lead storage battery (charging/discharging).

Electrode potential.