Class 35 E & E 13.07.2023 (Thursday)

- 1. Water Pollution
- 2. Environment Protection Act, 1986 (EPA)
- 3. Environment Impact Assessment (EIA)

1. Water Pollution

1- What? & Types 2- Major Pollutants of Water 3- Sources

4 - Effect 5 - Control

1. What an undesirable change in Composition / condition ______ Temperature NH4+, NO3, ·Turbidity of a water body Hg, As, Pb, Pesticide residues, Which makes it Pathogenic microorganisms_tunsmitable/unsafe nutrients Human Agricultural the life froms use supported in water ·PO_4 · NO_3 Consumption /

1A. Types based on the nature of water bodies due to this diff. pollutants - diff. Control measures Fround Pond & River Lake pollution Water pollution Ocean > All of pollution pollution > All the pollutants of $\rightarrow NH_4^+ \rightarrow NO_3^-$ -> All the Pond & Lake ground water → Hg → As → Pb Siver pollutants → Pesticide residues → Servage Sollutants Industrial -> oil spills -> Suspended clay particles effluents

3. Sources Point source Diffuse Non-boint Source r Clearly identifiable r Specific source - Several Sources Not clearly distinguishible Industry waste water - Farm Sun-off - Leaching to ground water -> River

Measurement of Bollution depends on the pollutants Heavy metals Inorganic Organic Downes matter pollutants Direct chemical analysis (DCA)>ppm · Serrage → BOD o Domestic PO3- /NO3/NH4+ > COD waste · Agricultural & Allied Activities waste · Community Wastes Biological Oxygent Demand

COD Chemical Oxygen Demand BOD: The Oz required by microorganisms to breakdown the organic pollutants

COD: The Oz required for nonbiological oxidation of (Higher than Organic pollutants BOD)

Agriculture Aquatic Human Health Ecosystem & Biodiversity Aesthetic

Control Laws & Rujes Bodies U Central Pollution 1) Water (Prevention and Control Board (CPCB) Control of Pollwtion Act, 1974 (2) SPCB 2 | Environment Profection Act, 1986 L's Various rufes

Minary Solid Wastes Central Govf. -> Power eWastes - Plastic Wastes Standards Hazardons & Medical Wastes Bodies Checkings -> Penalties Genetically Modified
(Polluter Pays) organisms (1989)