

# POLLUTION AND DISEASE - FULL MIND MAP

Topic-wise | Hinglish | SSC / BPSC / BSSC / Railway

## Topics in this chapter:

1. Lead, Toxic Pollutants & Health Effects
2. Industrial, Food & Household Toxicants
3. RSPM & Nanoparticle Risks

### 1. Lead, Toxic Pollutants & Health Effects

- motar vahan mein lead ka use nok-rodhi factor (Anti-Knocking Agent) ke roop mein kiya jata hai. dhuan ke saath air mein nikalane par lead bahut vishaila hota hai. [Q1]
- lead ek common environmental pollutant hai. lead processing karne wali factories, jaise lead pragalak (Smelters), ke paas rahane wale bachchon mein rakt lead level asaman roop se zyada paye gaye hain. [Q2]
- Galat kathan: Fluoride Ion Indigestion; dirghakalik phlorosis (Chronic Fluorosis) water aur food ke medium se phloraid ke uchch level ko capture karne se related widespread rog hai. lanbe samay tak phloraid capture karne se danton (Teeth), haddiyon (Bones) aur dusre angon par negative effect padata hai aur unaki sanrachana (Anatomy) aur kriyavidhi (Physiology) badalati hai. [Q3]
- 1, 2 and 3 - bahut pehle tak lipastik, ailainar aur maskara mein lead ki upasthiti ko FDA ke ke mutabik "shahari aphavah" (urban legend) mana jata tha. vastavik condition tab samane ai jab FDA (American food aur aushadhi prashasan, US Food and Drug Administration) ne saikadon lipastik ka parikshan kiya. FDA ki do lagatar janchon (investigations) mein parikshan ki gayi 100 percent lipastikon mein lead paya gaya. iske alava lead ki amount nagany nahi thi. bromineted vejitebal oil (Brominated vegetable oil) (sankshep mein BVO) ek food yojy (additive) hai jiska use kabhi-kabhi soda aur dusre pey substances (beverages) mein khatte svad (citrus flavoring) ko alag hone se rokane ke liye kiya jata hai. [Q4]
- historic pariksha-milan mein esbestos dhul ko phephadon, sise ko mastishk/tantrika system, pare ko pet aur carbon monoxide ko rakt se joda gaya hai. esbestos sanpark serious phephada-rog se clear roop se juda hai aur lead tantrika-vishaila substance hai. carbon monoxide rakt mein himoglobin se judakar oxygen-vahan mein badha dalata hai. pariksha ka abhipret kut A-3, B-1, C-2, D-4 hai, jo option (B) hai. [Q5]

**EXAM TRAP** kuchh relation clear hain: air mein mitti/dhul ke kan shvasan-rog paida kar sakte hain aur lead central tantrika system ko prabhavit karne wala established tantrika-vish hai. lekin carbon monoxide ki main strong vishaktata himoglobin se judakar utakon mein oxygen ki kami paida karna hai; ise sirf "yakrit aur gurde ki damage" se jodana uchit ekal-milan nahi hai. nitrogen oxides mainly shvasan system mein jalan aur damage karte hain; unhe sirf "kainsar" se define karna bhi saph ekal-milan nahi hai. diya gaya milan scientific roop se kamajor yugmon ko badhy karta hai; isliye koi ek purnatah nirvivad kut nahi banata aur sawal ko vivadit (\*) chihniti kiya gaya hai. [Q6]

### 2. Industrial, Food & Household Toxicants

- 1, 2, 3 and 4 - ispat bhatti (Steel Furnace) mein kok (Coke) lauh ayask (Iron Ore) ke saath reaction karta hai, jisse loha nikalata hai aur carbon monoxide aur carbon dioxide gases paida hoti hain. coal ke use ke reason sulfur ke oxide aur nitrogen jaise pollutant bhi nikalate hain. is type sabhi option sahi hain. isliye option (d) sahi jawab hai. [Q7]

- Galat kathan: Moulds; aphlatoksin kuchh phaphund dwara paida vishaile aur kainsarakari rasayan hain, jo soil, sadati hui vegetation aur anaj mein badhate hain. ye anuchit dhang se bhandarit main food substances jaise kasava, mirch mirch, makka, kapas-bij, bajara, mungaphali, chaval, gehun aadi mein niyमित रूप से पाये जाते हैं. [Q8]
- brominayukt jwala-mandak organobromine compound hain, jinaka burning rasayaniki par avarodhak effect hota hai aur ve apne utpadon ki jwalanashilata kam karte hain. kuchh brominayukt jwala-mandak ko dirghasthai, bio-sanchayi aur manushyon aur environment dono ke liye vishaila paya gaya hai aur un par tantrika-vyavahar sambandhi effect aur antahsravi vyavadhan paida karne ka sandeh hai. [Q9]

### 3. RSPM & Nanoparticle Risks

**EXAM TRAP** CPCB mein PM10/RSPM se ashay 10 mikromitar ya usase kam yayugatikiy vyaas wale kanon se hai, jabki PM2.5 ka meaning 2.5 mikromitar ya usase kam hai. basic vyakhya svayan "5  $\mu\text{m}$  se kam" wale purane dave ko PM10 ki  $\leq 10 \mu\text{m}$  paribhasha ke saath mila deti hai. diye gaye kisi option mein standard PM10/RSPM akar-manadand nahi hai. [Q10]

- 1, 2 and 3 - atisukshma kanon water, soil aur air ko polluted karte hain. jivanu dwara capture kiye jane ke baad puri food chain prabhavit ho sakti hai. [Q11]