

WATER POLLUTION - FULL MIND MAP

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

Topics in this chapter:

1. Groundwater & Industrial Water Pollutants
2. Eutrophication, BOD & River-water Quality
3. Arsenic, Biological Desert & Drinking-water Hazards
4. Solid Waste Rules & Integrated Pollution Concepts

1. Groundwater & Industrial Water Pollutants

- Arsenic - arsenik bhumigat water ka ek abiotic pollutant hai. peyajal mein arsenik ka enter local adharashila mein iski natural bhuvaajnyanik upasthiti ke reason ho sakta hai. [Q1]

EXAM TRAP chamada, kagaj, reyan aur vastr udyog sabhi water mein paryapt chemical pollutant chhod sakte hain, lekin pollution-bhar process, upachar-takanik aur mapadand par dependent karta hai. sawal "sabse zyada chemical pollution" puchhata hai, lekin BOD, COD, vishakt bhar, waste-water ki amount ya koi dusre mapaniy manadand nahi batata. sirf di gayi shabdavali se universal rainking specified nahi ki ja sakati. [Q2]

- Galat kathan: Eutrophication; yutrophikeshan water pollution ka ek roop hai. yeh tab hota hai jab bahut zyada urvarak jhilon aur nadiyon mein bahakar pahunchate hain. [Q3]

2. Eutrophication, BOD & River-water Quality

- yutrophikeshan lake ya dusre water nikay mein nutrient tatvon ki bahut zyada prachurata hai, jo aam taur par land se bahav ke reason hoti hai aur paudh life ki ghani increase karati hai. isse algae ki bahut zyada increase hoti hai aur yeh process water mein ghuli oxygen ko ghatati hai. yutrophikeshan aam taur par nitrate ya phosphet (Phosphate) yukt apamarjak (Detergents), urvarak ya malajal ke aquatic system mein pravah se prerit hota hai. [Q4]
- Aquatic environment - bio chemical oxygen demand woh ghuli hui oxygen ki amount hai jisaki zarurat kisi diye gaye water namune mein present organic substance ko fixed temperature par fixed avadhi mein vighatit karne ke liye avayaviy biotic organism ko hoti hai. BOD mein increase water mein uchch level ke organic pollution ko darshati hai kyunki sabhi organic aur inorganic waste vighatan ke liye ghuli oxygen ka use karte hain. [Q5]
- Being contaminated by sewage - BOD water mein present organic substance ki amount ko shows hai. isliye kam BOD achchhe quality wale water ka sanketak hai, jabki zyada BOD polluted water shows hai. [Q6]
- Oxygen - BOD water mein present organic substance ki amount ko shows hai. isliye kam BOD achchhe quality wale water ka sanketak hai, jabki zyada BOD polluted water shows hai. [Q7]
- Amount of Oxygen dissolved in water - bio chemical oxygen demand (Biochemical Oxygen Demand - BOD) woh ghulit oxygen (DO) ki amount hai jisaki zarurat vayujivi (Aerobic) biotic organism ko kisi water namune mein present organic substance ko fixed temperature par fixed samay mein todane ke liye hoti hai. BOD man aam taur par 5 dinon ke ushmayan (Incubation) ke dauran 20°C par per litar namune mein consumption ki gayi oxygen ke miligram (Milligrams) mein vyakt kiya jata hai aur ise aam taur par water ke organic pollution ki amount ka pratinidhi indicator (Surrogate) mana jata hai. [Q8]

- Pollution assay in aquatic ecosystems - BOD aquatic ecosystems mein pollution parikshan ke liye ek standard mapadand hai. [Q9]
- Kanpur and Allahabad - Ganga river mein BOD kanpur aur ilahabad (ab prayagaraj) ke beech sabse zyada hai kyunki kanpur Ganga mein badi amount mein pollutant chhodata hai. is wajah se yahan BOD zyada hai. [Q10]
- algae prasphutan chhote hare plants ki ghani paraten hain, jo jhilon aur dusre water nikayon ki surface par tab banti hain jab shaivalon ke liye zaroori nutrient tatvon ki bahut zyada prachurata hoti hai. algae prasphutan water ki quality kharab karta hai aur machhaliyon ki mrityu ka reason banata hai. harmful algae prasphutan, mrit area aur machhaliyon ki mrityu us process ke result hain jise suposhan kaha jata hai. isliye dono statement sahi hain. [Q11]

3. Arsenic, Biological Desert & Drinking-water Hazards

- India ke brahmaputr aur Ganga ke maidan aur bangladesh ke padma-meghana maidanon ka groundwater arsenik se bahut zyada polluted hai. India ke sat states - West Bengal, Jharkhand, Bihar, Uttar Pradesh, Assam, Manipur aur Chhattisgarh - ka groundwater arsenik se polluted hai. [Q12]
- bangladesh mein groundwater ka arsenik sandushan ek main jan-health samasya ke roop mein pahachana gaya hai. arsenik sandushan pehli baar 1993 mein bangladesh ke ek uttari district mein nalakupon (Tubewells) ke water mein paya gaya tha. [Q13]
- apni vinashakari badhon ke reason 'Bengal ka shok' mani jane wali damodar ab bahut zyada pollution ke reason Jharkhand aur Bengal dono ka shok ban gayi hai. khadanon, udyogon, shaharon aur agriculture areas se nikalane wale pollutants ki bhari amount ne river ki quality itani kharab kar di hai ki yeh vastutah biotic marusthal ban gayi hai. [Q14]
- apni vinashakari badhon ke reason 'Bengal ka shok' mani jane wali damodar ab bahut zyada pollution ke reason Jharkhand aur Bengal dono ka shok ban gayi hai. khadanon, udyogon, shaharon aur agriculture areas se nikalane wale pollutants ki bhari amount ne river ki quality itani kharab kar di hai ki yeh vastutah biotic marusthal ban gayi hai. [Q15]
- Neither 1 nor 2 - relave aur protection research development organization (Defence Research and Development Organisation - DRDO) dwara developed bio-shauchalay mein avayujivi (Anaerobic) jivanu ka group (Colony) hota hai, jo human waste ko water aur kuchh gaison mein badalata hai. gaison ko atmosphere mein chhoda jata hai aur water ko klorinikaran (Chlorination) ke baad patariyon (Tracks) par chhod diya jata hai. isliye dono statement sahi nahi hain. [Q16]
- yeh 2018 ka Uttar Pradesh sawal hai, jismein us samay ke pollution-context mein gomati river ko "biotic disaster" kaha gaya tha. yeh term sthayi scientific classification ke bajay historic/samasamayik context ka lebal hai. [Q17]
- 1, 3 and 5 - water pollution India mein ek main environmental samasya hai. India mein water pollution ka sabse bada source ashodhit malajal hai. [Q18]
- Fluoride - jab phloraid level 0.5 ppm se zyada ho aur 5-10 varshon tak aisa bana rahe, to phlorosis (Fluorosis) ho sakta hai. phloraid ka kailshiyam (Calcium) ke per akarshan hota hai aur yeh haddiyon mein jama hokar haddiyon aur jodon mein dard aur ghutanon se pairon ke bahar ki taraf mudane ki condition paida karta hai, jise nok-ni sindrom (Knock-Knee Syndrome) kaha jata hai. [Q19]

4. Solid Waste Rules & Integrated Pollution Concepts

EXAM TRAP nagarapalika thos waste ki total aur per vyakti amount shahar, report-year, kavarej aur paddhati ke ke mutabik badalati hai. basic 2010 sawal purane ankada-kal ko shows hai aur ise abhi samay ka sthayi shahar-sarvochch nahi banaya ja sakata. sawal ki shabdavali mein fixed dataset ya year nahi diya gaya hai; isliye sabhi samayon ke liye koi ek option surakshit roop se sahi nahi hai. [Q20]

- thos waste management niyam, 2016 mein land-bharav (Landfill) aur waste-processing suvidhaon ke liye vistrit site-chayan aur takaniki manadand diye gaye hain. in niyamon ka dayara sirf adhisuchit shahari local nikayon aur industrial city areas tak simit nahi hai. waste paida karne valon ko source par kachare ka prithakkaran karna hota hai, lekin option (A) mein panch shreniyan batana sahi nahi hai. [Q21]
- bio-avardhan mein kramik nutrition-levels par pollutant ki concentration badhti hai; isliye A-3. vaidyut-sthaitik avakshapak gaisiy emissions se kaniy substance hatate hain; isliye B-4. laindaphil thos waste ke nistaran ke liye used hote hain; isliye C-2. stratospheric light-rasayan se ozone ka construction hota hai; isliye D-1. kut 3-4-2-1 banata hai, jo option (A) hai. [Q22]