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Q39

"Membrane Bioreactors" are often discussed in the context of: (a) Assisted reproductive technologies (b) Drug delivery nanotechnologies (c) Vaccine production technologies (d) Wastewater treatment technologies Official key: D.

UPSC Civil Services Prelims 2024 · General Studies · 2 marks · Environment and Ecology

Environment, ecology, climate, biodiversity - Prelims GS Paper I.

Explanation

(a)

Assisted reproduction. That is IVF / ICSI, not **MBR**.

(b)

Drug-delivery nanotech. Different membranes.

(c)

Vaccine production. Not the usual **MBR** headline.

(d) Official key

Wastewater treatment. Membrane bioreactors combine **activated sludge** with membrane filtration.

Summary

Official key is (d) wastewater treatment. A membrane bioreactor (**MBR**) couples biological treatment with a membrane to separate sludge from treated water. It is a sewage / industrial-effluent technology, not IVF or vaccines.

Related possible facts

These can be asked in a future Prelims paper.

MBR

Membrane bioreactor; compact plants, high-quality effluent.

Activated sludge

Aerobic microbes that consume organic load in sewage.

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