

CIVIL ENGINEERING

QUESTION BANK

Course Title : GROUND WATER HYDROLOGY

Course Code : 23CE711

Regulation : NR23

UNIT-V

Saline Water Intrusion in Aquifers

S.No	Questions		BT	CO	PO
Part – A (Short Answer Questions)					
1	What is saline water intrusion?		L2	CO5	2
2	Mention the causes of saline water intrusion.		L4	CO5	2
3	Define the freshwater–saltwater interface.		L6	CO5	2
4	State the Ghyben–Herzberg relation.		L5	CO5	2
5	What are the assumptions of the Ghyben–Herzberg theory?		L1	CO5	2
6	Explain the shape of the saltwater interface.		L6	CO5	6
7	What are the effects of saline water intrusion on groundwater quality?		L1	CO5	6
8	Mention the methods used to control saline water intrusion.		L1	CO5	6
9	What is groundwater basin management?		L2	CO5	4
10	Explain the role of artificial recharge in controlling seawater intrusion.		L1	CO5	4
Part – B (Long Answer Questions)					
11	a	Explain the occurrence and causes of saline water intrusion in coastal aquifers.	L2	CO5	5

	b	Discuss the mechanism of seawater intrusion into groundwater systems.	L1	CO5	1
12	a	Derive the Ghyben–Herzberg relation and explain its significance.	L5	CO5	2
	b	Explain the assumptions involved in the Ghyben–Herzberg theory.	L1	CO5	1
13	a	Discuss the shape and behavior of the freshwater–saltwater interface.	L5	CO5	2
	b	Explain the factors affecting saline water intrusion in coastal regions.	L1	CO5	2
14	a	Discuss the environmental and economic impacts of seawater intrusion.	L5	CO5	2
	b	Explain various methods used to control saline water intrusion.	L6	CO5	2
15	a	Discuss the role of artificial recharge in preventing seawater intrusion.	L2	CO5	6
	b	Discuss the role of artificial recharge in preventing seawater intrusion.	L1	CO5	2
16	a	Discuss sustainable groundwater management strategies for coastal aquifers.	L6	CO5	2
	b	Explain groundwater basin management with suitable case studies related to saline water intrusion control.	L4	CO5	5

* **Blooms Taxonomy Level (BT)** (L1 – Remembering; L2 – Understanding; L3 – Applying; Analyzing; L5 – Evaluating; L6 – Creating)

L4 –

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