

CIVIL ENGINEERING

QUESTION BANK

Course Title : GROUND WATER HYDROLOGY

Course Code : 23CE711

Regulation : NR23

UNIT-IV

Surface and Sub-surface Investigation

S.No	Questions	BT	CO	PO
Part – A (Short Answer Questions)				
1	What are groundwater exploration methods?	L1	CO4	2
2	Explain the electrical resistivity method.	L4	CO4	6
3	State the principle of electrical resistivity surveys.	L1	CO4	2
4	What is seismic refraction surveying?	L4	CO4	6
5	Mention the applications of seismic refraction methods.	L5	CO4	3
6	Define geophysical logging.	L1	CO4	2
7	What is resistivity logging?	L4	CO4	3
8	Explain the concept of artificial recharge of groundwater.	L4	CO4	2
9	List any four artificial recharge techniques.	L1	CO4	6
10	State the applications of GIS and Remote Sensing in groundwater studies.	L5	CO4	1
Part – B (Long Answer Questions)				
11	a) Explain the need and objectives of groundwater exploration and investigation.	L5	CO4	6

	b)	Describe the electrical resistivity method used in groundwater exploration.	L1	CO4	2
12	a)	Explain the principles, field procedures, and applications of resistivity surveys.	L4	CO4	2
	b)	Discuss the seismic refraction method and its applications in groundwater studies.	L1	CO4	2
13	a)	Compare electrical resistivity and seismic refraction methods.	L1	CO4	2
	b)	Explain geophysical logging and its importance in groundwater investigations..	L4	CO4	2
14	a)	Describe resistivity logging and interpretation of resistivity logs.	L5	CO4	6
	b)	Explain various subsurface investigation methods used for groundwater exploration.	L1	CO4	4
15	a)	Discuss the concept and importance of artificial recharge of groundwater.	L1	CO4	4
	b)	Explain different artificial recharge techniques with neat sketches.	L1	CO4	4
16	a)	Describe the applications of GIS in groundwater resource assessment and management.	L5	CO4	2
	b)	Explain the role of Remote Sensing in groundwater exploration and artificial recharge studies.	L1	CO4	2

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

L4 –

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