

Course Title : GROUND WATER HYDROLOGY

Course Code : 23CE711

Regulation : NR23

UNIT – V: Saline Water Intrusion and Groundwater Basin Management

Multiple Choice Questions

1. Saline water intrusion commonly occurs in:
 - A) Coastal Aquifers
 - B) Mountain Areas
 - C) Forest Areas
 - D) Desert Areas
 - **Answer: A**
2. Saline water intrusion results from:
 - A) Excessive Groundwater Pumping
 - B) Rainfall
 - C) Evaporation
 - D) Surface Runoff
 - **Answer: A**
3. The Ghyben-Herzberg relation is used to estimate:
 - A) Aquifer Thickness
 - B) Freshwater-Saltwater Interface
 - C) Porosity
 - D) Rainfall
 - **Answer: B**
4. According to Ghyben-Herzberg relation, 1 m of freshwater head supports about:
 - A) 4 m
 - B) 10 m
 - C) 20 m
 - D) 40 m
 - **Answer: D**
5. The interface between fresh and saline water is generally:

- A) Vertical
 - B) Horizontal
 - C) Curved
 - D) Circular
 - **Answer: C**
6. A method to control saline intrusion is:
- A) Excessive Pumping
 - B) Artificial Recharge
 - C) Deforestation
 - D) Mining
 - **Answer: B**
7. Groundwater basin management aims at:
- A) Sustainable Utilization
 - B) Overexploitation
 - C) Water Wastage
 - D) Salinity Increase
 - **Answer: A**
8. Coastal aquifers are vulnerable to:
- A) Floods Only
 - B) Saline Water Intrusion
 - C) Drought Only
 - D) Erosion Only
 - **Answer: B**
9. Freshwater has a density approximately equal to:
- A) 1.0 g/cm³
 - B) 2.0 g/cm³
 - C) 0.5 g/cm³
 - D) 3.0 g/cm³
 - **Answer: A**
10. Groundwater management includes:
- A) Monitoring
 - B) Regulation
 - C) Recharge
 - D) All of the Above
 - **Answer: D**

Fill in the Blanks

1. Saline water intrusion is common in _____ aquifers.
Answer: Coastal
2. Excessive groundwater _____ promotes saline intrusion.
Answer: Pumping
3. The Ghyben-Herzberg relation describes the freshwater-saltwater _____.
Answer: Interface
4. Artificial _____ helps control seawater intrusion.
Answer: Recharge

5. The density of seawater is greater than _____ water.
Answer: Fresh
6. Groundwater basin management promotes _____ use of resources.
Answer: Sustainable
7. The freshwater-saltwater interface is generally _____ in shape.
Answer: Curved
8. Saline intrusion deteriorates groundwater _____.
Answer: Quality
9. Monitoring wells are used to observe groundwater _____.
Answer: Levels
10. Ghyben-Herzberg relation is important in _____ aquifer studies.
Answer: Coastal