

CIVIL ENGINEERING

Work Sheet

Course Title : GROUND WATER HYDROLOGY

Course Code : 23CE711

Regulation : NR23

UNIT – II: Analysis of Pumping Test Data – I

Multiple Choice Questions

1. Dupuit's theory is applicable to:
 - A) Surface Flow
 - B) Groundwater Flow
 - C) Channel Flow
 - D) Pipe Flow
 - **Answer: B**
2. Steady flow means:
 - A) Flow varies with time
 - B) Water level remains constant with time
 - C) No flow exists
 - D) Turbulent flow occurs
 - **Answer: B**
3. The drawdown in a pumping well is:
 - A) Rise in water level
 - B) Difference between original and pumping water levels
 - C) Water depth
 - D) Aquifer thickness
 - **Answer: B**
4. Theis equation is used for:
 - A) Steady Flow
 - B) Surface Flow
 - C) Radial Groundwater Flow
 - D) Channel Flow
 - **Answer: C**
5. Yield of a well depends on:
 - A) Aquifer Characteristics
 - B) Color of Water

- C) Temperature
 - D) Rainfall Only
 - **Answer: A**
6. Formation constants are determined through:
- A) Pumping Tests
 - B) Rain Gauge Data
 - C) Soil Classification
 - D) Weather Reports
 - **Answer: A**
7. The flow toward a well is generally:
- A) Linear
 - B) Circular/Radial
 - C) Turbulent
 - D) Vertical
 - **Answer: B**
8. In a confined aquifer, water is under:
- A) Atmospheric Pressure
 - B) Artesian Pressure
 - C) Zero Pressure
 - D) Vacuum
 - **Answer: B**
9. Radius of influence refers to:
- A) Well Diameter
 - B) Drawdown Radius
 - C) Area Affected by Pumping
 - D) Aquifer Thickness
 - **Answer: C**
10. Pumping tests are conducted to estimate:
- A) Transmissivity
 - B) Storage Coefficient
 - C) Aquifer Properties
 - D) All of the Above
 - **Answer: D**

Fill in the Blanks

1. Flow toward a pumping well is generally _____ flow.
Answer: Radial
2. The difference in water levels before and after pumping is called _____.
Answer: Drawdown
3. Dupuit's equation is applicable for _____ flow conditions.
Answer: Steady
4. This equation is used for flow toward a _____.
Answer: Well
5. The area affected by pumping is called the radius of _____.
Answer: Influence

6. Pumping tests help determine aquifer _____.

Answer: Properties

7. An open well generally taps an _____ aquifer.

Answer: Unconfined

8. The water level in a confined aquifer is called the _____ surface.

Answer: Piezometric

9. Formation constants include transmissivity and _____ coefficient.

Answer: Storage

10. Yield of a well is usually expressed in _____ per second.

Answer: Liters
