

This question paper contains 2 printed pages]

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S. No. of Question Paper : 8593

Unique Paper Code : 219501

C

Name of the Paper : GEHT-501 : Hydrogeology

Name of the Course : B.Sc. (Hons.) Geology

Semester : V

Duration : 3 Hours

Maximum Marks : 75

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt any *five* questions.

All questions carry equal marks.

1. Discuss with the help of suitable diagram the relationship between fresh and saline groundwater in unconfined coastal aquifer. Discuss the groundwater management practices to be adopted in coastal aquifers.
2. Describe in detail the surface based groundwater geophysical exploration methods.
3. Explain the following with the help of suitable diagrams :
 - (a) Types of aquifer.
 - (b) Darcy's law and its validity.
4. Write notes on the following :
 - (a) Groundwater in non-indurated sediments.
 - (b) Steady state radial flow to a pumping well in the confined aquifer.

P.T.O.

5. Differentiate between each of the following pair :
- (a) Aquifer and Aquiclude.
 - (b) Storativity and Transmissivity.
 - (c) Primary porosity and Secondary porosity.
6. Differentiate between each of the following pair :
- (a) Specific yield and Specific retention.
 - (b) Semiconfined aquifer and Unconfined aquifer.
 - (c) Intrinsic permeability and Hydraulic conductivity.
7. Write notes on the following :
- (a) C-S diagram.
 - (b) Subsurface groundwater exploration method.
8. Write notes on the following :
- (a) Hydrologic cycle.
 - (b) Precambrian crystalline groundwater province of India.