

This question paper contains 2 printed pages]

Roll No.

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S. No. of Question Paper : 816

Unique Paper Code : 219501

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Name of the Paper : Hydrogeology(GEHT-501)

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 about the subsurface based geophysical methods used in groundwater exploration.
2. Explain the following with help of suitable diagrams :
  - (a) Vertical distribution of subsurface water.
  - (b) Confined and unconfined aquifers.
3. Write notes on the following :
  - (a) Equilibrium condition flow to a pumping well in confined aquifers.
  - (b) Hydrologic cycle.
4. Write notes on the following :
  - (a) Groundwater occurrence in igneous rocks.
  - (b) Groundwater level fluctuations.

P.T.O.

5. Differentiate between each of the following pair :
- (a) Porosity and permeability.
  - (b) Aquifuge and Aquitard.
  - (c) Specific yield and specific retention.
6. Differentiate between each of the following pair :
- (a) Hydraulic conductivity and Transmissivity.
  - (b) Storativity and specific storage.
  - (c) Effluent and Influent streams.
7. Discuss about seawater intrusion in coastal aquifers.
8. Write short notes on the following :
- (a) Darcy's law.
  - (b) Precambrian crystalline and Precambrian sedimentary groundwater provinces of india.