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**Ph.D. GEOLOGY
(PHDGY)**

Term-End Examination

June, 2018

RGYE-113 : HYDROGEOLOGY

Time : 3 hours

Maximum Marks : 100

*Note : Answer any **five** questions. All questions carry equal marks.*

1. Describe the geological controls on groundwater. Explain the occurrence of groundwater in sedimentary formations. 20
2. Discuss in detail the electric resistivity method of exploration in groundwater survey. 20
3. Define Darcy's law. Explain the concepts that govern the steady and unsteady groundwater flow to wells. 20
4. Write in detail about the groundwater provinces of India. 20

5. Explain vertical distribution of groundwater with a neat sketch. Add a note on specific retention and specific yield. 20
6. Discuss the various computer models used in the study of aquifers. 20
7. Write short notes on any **two** of the following : 2×10=20
- (a) Groundwater Pollution
 - (b) Unconfined Aquifer
 - (c) Jetted Wells
 - (d) Flow Nets
8. Write short notes on any **two** of the following : 2×10=20
- (a) Age Dating of Groundwater
 - (b) Groundwater Management
 - (c) Design of Wells
 - (d) Cone of Depression
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