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**GIH 501**

**Third Semester M.Sc. Degree Examination, December 2018/January 2019  
(CBCS)  
GEOINFORMATICS  
Water Resources**

Time : 3 Hours

Max. Marks : 70

I. Define **any five** of the following :

**(2×5=10)**

- 1) Porosity and permeability.
- 2) Infiltration.
- 3) Storage coefficient.
- 4) Connate water.
- 5) Vadose water.
- 6) Lineaments.
- 7) Aquifuge.

II. Write short notes on **any five** of the following :

**(4×5=20)**

- 8) Concept of surface water.
- 9) Confined and unconfined aquifer.
- 10) Problems of over exploitation of ground water.
- 11) Application of DEM in flood mapping.
- 12) Geomorphic controls of water resources.
- 13) Slope analysis.
- 14) Darcy's law and its applications in ground water movement.

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III. Answer **any four** of the following :

**(5×4=20)**

- 15) Write a note on ground water contamination.
- 16) Discuss the different methods in water resource estimation.
- 17) Explain the problems of sea water intrusion in coastal aquifer.
- 18) Write a note on concept of natural recharge.
- 19) Give an account of physical and chemical properties water.

IV. Essay type questions :

20) Describe the hydrological cycle and its segments.

**10**

OR

Explain the artificial recharge techniques in river basin management.

21) Explain in detail geological and geophysical methods of groundwater exploration.

**10**

OR

Explain the application of remote sensing and GIS in the study of water resources.

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