

M.Sc.(Geology) (CBCS Pattern) Semester - III
PSCGEOT09 - Paper-I : Hydrogeology and Watershed Management

P. Pages : 2

Time : Three Hours



GUG/S/23/11270

Max. Marks : 80

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- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw a neat sketch wherever necessary.

1. Describe the mode of occurrence of groundwater in different geological formation.

OR

Write note on:

- a) Spring
- b) Flow net analysis
- c) Water table contour maps.
- d) Hydrological cycle.

2. Describe the environmental effects of over-exploitation of ground water.

OR

Write note on: -

- a) Water logging problems.
- b) Types of aquifers and aquitard.
- c) Groundwater quality.
- d) Radioisotopes in hydrogeological studies.

3. Describe various surface and subsurface methods of groundwater exploration.

OR

Write note on the following: -

- a) Type and design of wells.
- b) Pump test.
- c) Steady and unsteady flow
- d) Application of remote sensing in groundwater exploration.

4. Describe the role of NGOs and government policies in watershed development.

OR

Write note on the following: -

- a) Rainwater harvesting
- b) Technical aspect of artificial recharge structure.
- c) Importance of water resources.
- d) Concept of watershed.

5. Write very short notes on the following -

- a) Darcy's law.
- b) Reynold number.
- c) Saline water intrusion.
- d) Groundwater quality.
- e) Well completion and well development.
- f) Hydrographs.
- g) Artificial recharge.
- h) Groundwater legislation.
