

M.Sc.(Geology) Third Semester (Old Course)  
**MSc2384 - Hydrogeology & Watershed Management Paper-IV**

P. Pages : 2

Time : Three Hours



**GUG/W/18/2269**

Max. Marks : 80

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

1. Describe mode of occurrence of groundwater in Decan Traps and comment on groundwater development strategy in Trap rock area. **16**

**OR**

Write notes on the following **4x4**

- a) Water table contour map.
- b) Flownet analysis
- c) Confined aquifer
- d) Darcy's law

2. Discuss major chemical parameter of groundwater. Throw some light on chemical facies evaluation of groundwater. **16**

**OR**

Write notes on the following. **4x4**

- a) Irrigation use of groundwater.
- b) Coastal aquifers.
- c) Groundwater fluctuation.
- d) Use of radioisotopes in hydrogeological studies.

3. Describe important subsurface methods of groundwater exploration. **16**

**OR**

Write notes on the following.

- a) Site selection for water well construction. **4x4**
- b) Methods of water well construction.
- c) Well development.
- d) Steady flow of groundwater.

4. Discuss various aspects of groundwater resource management. 16

OR

Write notes on the following. 4x4

- a) Artificial recharge structures.
- b) Concept of watershed.
- c) Groundwater legislation
- d) Conjunctive use of groundwater.

5. Write short notes on the following. 16

- a) Spring.
- b) Reynolds number
- c) Saline water intrusion
- d) Water logging.
- e) Surface exploration techniques for groundwater
- f) Hydrographs
- g) Rain water harvesting
- h) Conjunctive use of surface water.

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