

Model Question Paper SET2
Paper : MJ 14 (HYDROLOGY)
Subject : Geology

Full Marks: 75

Time: 3 hours

Group A

(Short answer-type compulsory questions)

Q1. Fill in the blanks: [5x1=5]

- a) The zone above the water table is known as the _____ zone.
- b) The ability of a geological formation to allow the passage of groundwater is termed _____.
- c) The SI unit of hydraulic conductivity is _____.
- d) A well in which groundwater rises above the aquifer due to confined pressure is called an _____ well
- e) BIS stands for _____.

Q2. Define porosity, permeability, specific yield, and specific retention [5]

Q3. Describe the different types of groundwater and discuss their origin. [5]

Group B [4 X 15]

Answer any four

(Subjective/ Descriptive questions)

- Q4. State and explain Darcy's law and discuss its applications.
- Q5. Explain pumping tests and determination of transmissivity and storativity.
- Q6. Discuss geophysical methods of groundwater exploration.
- Q7. Describe aquifer, aquiclude, aquitard, and aquifuge and compare their hydrogeological characteristics.
- Q8. Describe various artificial groundwater recharge techniques with suitable diagrams
- Q9. Describe Hydrogeological provinces of India .

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