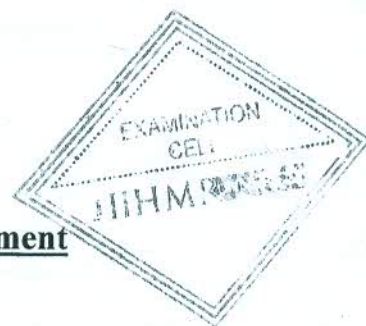


**Time - 3 Hours****MM-70**

The question paper contains 01 printed pages.

Instruction: Please read all the questions carefully and understand it properly prior to answer the questions. **Five questions are to be answered in altogether that means Answer any four questions excluding Q1. Q1 is compulsory for all and carries equal marks for each subset of questions.** Please use diagram, graphs/infographics and table wherever you feel it is necessary.

- Q.1. Write down short notes on any three from the following within 100 words: [10 marks]
- a) Sources of water
 - b) Factors affect soil water
 - c) Water resources of India
 - d) Management of water resources in India
 - e) Artificial Recharge techniques and designs
 - f) Difference between quality of Surface water and Ground water
- Q.2. Describe various sources of water for recharge of ground water? [15 marks]
- Q.3. Explain concepts of groundwater management. [15 marks]
- Q.4. What are the basic principles of groundwater modeling? [15 marks]
- Q.5. what are the critical issues related to ground water sector in India? Discuss with suitable examples, facts and figures. [15 marks]
- Q.6. What do you understand by Socio-economic factor? How does it affect the utilization of ground water resources? [15 marks]
- Q.7. What do you understand by community participation for ground water management, explain? justify the adopted, whether it will be successful or not? [15 marks]
- Q.8. Water User Association (WUA) has been instrumental to engage community for managing ground water in many parts of the country and globe? As a manager describe its characteristics, role and challenges they faced in implementing the concept at grassroot level. [15 marks]
- Q.9. What are the factors accountable for making water pricing for industries? [15 marks]