

(Following Paper ID and Roll No. to be filled in your Answer Book)

**PAPER ID : 2453**

Roll No.

--	--	--	--	--	--	--	--	--	--

**B.Tech.**

**(SEMESTER-VI) THEORY EXAMINATION, 2012-13  
RURAL WATER SUPPLY AND SANITATION**

*Time : 3 Hours ]*

*[ Total Marks : 100*

**SECTION – A**

1. Attempt all question parts. 10 × 2 = 20
- What is scope of sanitation in rural areas ?
  - Define the term Sanitation.
  - What are the various approaches of planning of water supply schemes in rural areas ?
  - Write short note on infiltration galleries.
  - Define multi-bottom settlers.
  - What are the advantages of slow sand filter ?
  - What do you understand about night soil ?
  - What are the methods available for collection of night soil ?
  - State the different methods of disposal of solid wastes.
  - Write short note on land filling.

**SECTION – B**

2. Attempt any five question parts : 5 × 6 = 30
- What are the advantages of a successful water supply project ?
    - Enumerate the points to be included in a report for a water supply scheme.



- (b) Explain the specific practices and problems encountered in rural water supply.
- (c) Discuss the physical tests of solid waste.
- (d) Briefly explain diatomaceous earth filter and cloth filter.
- (e) Enumerate the salient features for planning of distribution system in rural areas.
- (f) Mention the various methods of disposal of effluent from septic tank. Describe one of them in detail.
- (g) Briefly explain the disposal of solid wastes.

### SECTION – C

Attempt **all** questions :

**5 × 10 = 50**

3. Attempt any **two** parts :

**2 × 5 = 10**

- (a) What are the important points to be considered for a proposed water supply scheme ?
- (b) Explain logistic curve method.
- (c) What are the aspects to be considered at the time of selection of site for disposal of solid waste works ?

4. Attempt any **one** part :

**10**

- (a) Explain with neat sketch for the infiltration wells.
- (b) Write a short note on infiltration galleries.

5. Attempt any **one** part :

**10**

- (a) Describe in details about appurtenances and improved devices for use in rural water supply.
- (b) Discuss with neat sketch for slow sand filter and chlorine diffusion cartridges.

6. Attempt any **one** part :

**10**

- (a) Explain with neat sketch for the stabilization ponds.
- (b) Compare and contrast Septic tank with Imhoff tank in scope, function and performance.

7. Attempt any **two** parts :

**5 × 2 = 10**

- (a) Explain the meaning of disposal of solid waste by composting treatment and describe the actions involved in it.
  - (b) Explain the disposal of solid waste by using biogas plants with sketch.
  - (c) What are the conditions which are considered to be favourable for the disposal of solid waste by land filling ?
-