

B.TECH.**THEORY EXAMINATION (SEM–VI) 2016-17****RURAL WATER SUPPLY AND SANITATION****Time : 3 Hours****Max. Marks : 100****Note : Be precise in your answer. In case of numerical problem assume data wherever not provided.****SECTION – A****1. Explain the following: 10 x 2 = 20**

- (a) What is the objective of rural water supply scheme?
- (b) List out the merits of rural water supply system.
- (c) What are the effects of improper disposal of solid wastes?
- (d) How do you dispose the waste water in a effluent manner?
- (e) What are the factors considering while disposing solid waste?
- (f) List out the special wastes & agricultural wastes.
- (g) Write down the temporary & disposable containers?
- (h) Enumerate the factors effecting the storage of solid waste management.
- (i) Define Solid waste management.
- (j) Mention any two public awareness programme with regards to SWM.

SECTION – B**2. Attempt any five of the following questions: 5 x 10 = 50**

- (a) Explain the various methods for low cost water treatment.
- (b) How do you monitor the rural water quality parameters?
- (c) Discuss the various waste water treatment techniques.
- (d) Design a septic tank for a hostel with the following data:
 - (i) Number of users = 150
 - (ii) Peak discharge = 205 lpm.
 - (iii) Desludging period = 1 year.Assuming the population rate as 20 minutes per cm design dispersion trench system for the disposal of the septic tank effluent.
- (e) What are the processing operations used at medium and high rise apartments?
- (f) What are the special techniques of treatment for industrial hygiene and sanitation?
- (g) What is the processing of solid waste at commercial and industrial facilities?
- (h) Distinguish between “Destruction and Removal Efficiency” and “Combustion Efficiency” of an incinerator.

SECTION – C**Attempt any two of the following questions: 2 x 15 = 30**

- 3 (i) Draw a neat sketch and explain the process of low cost water treatment.
(ii) List out and define the various treatment process given on waste water.
- 4 Discuss the various awareness program conducted for the disposal of waste. What changes would you recommended for these methods to make the program more hygienic.
- 5 (i) Analyze the effects and improper disposal of solid waste on human health and environment.
(ii) Write short notes on Incineration.