

B.Tech. Civil (Construction Management)

Term-End Examination

June, 2012

ET-581(C) : BUILDING SERVICES

Time : 3 Hours

Maximum Marks : 70

Note : Attempt any five questions. All questions carry equal marks. Give neat sketches wherever required.

1. (a) Describe types of sedimentation tanks. 7
Compute the dimensions of a continuous flow rectangular settling tank for a population of twenty thousand persons with a daily per capita water allowance of 135 litres. Take detention period as 5 hours. The maximum daily demand is 1.8 times that of average daily demand. Assume surface overflow rate as $15 \text{ m}^3 / \text{day}/\text{m}^2$.
- (b) What are the types of disinfectant used in water supply ? Explain the action of chlorine. 7
2. (a) Describe hardness of water. Explain any one method of removal of permanent hardness of water. 7
- (b) Describe hydraulic testing of pipe sewers. 7

3. (a) What is composting ? Explain vermi composting. 7
- (b) Explain various methods of wiring in buildings. 7
4. (a) How a building structure is protected against explosive or highly inflammable materials ? 7
- (b) Discuss the design of earthing system provided in buildings. 7
5. (a) Explain how dehumidification of moist air is carried out ? 7
- (b) Write a note on ventilation. 7
6. (a) Explain how preconstruction anti-termite treatment is carried out ? 7
- (b) What is the composition of paints ? Explain each in detail. 7
7. (a) Describe the following : 7
- (i) Fire load
- (ii) Fire resistance
- (iii) Fire severity
- (b) Discuss safety devices provided in elevators. 7

8. Write short notes on the following : $4 \times 3\frac{1}{2} = 14$

- (a) Maintenance of water distribution system.
 - (b) Electrical distribution system
 - (c) Staircase.
 - (d) Population forecast.
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