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**B.Tech. Civil (Construction Management)****Term-End Examination****December, 2011****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) What are various parameters to test quality of potable water ? 7

The population data of a town in various years is given below. Forecast the population in 2011.

Year	1971	1981	1991	2001
Population (thousand)	90	135	189	257

Use decrease rate of growth method.

- (b) Differentiate coagulation and flocculation. Explain jar test. 7
2. (a) Explain how following are removed from water : 7
- (i) Iron and manganese
- (ii) Fluorides
- (b) Explain Prechlorination, Post chlorination , Rechlorination and Dechlorination. 7

3. (a) Explain following sewage characteristics : 7  
(i) BOD  
(ii) COD  
(iii) TDS  
(b) Write a note on disposal of treated effluent. 7
4. (a) Discuss factors affecting the design of power supply scheme. 7  
(b) Describe basic electric safety rules. 7
5. (a) Explain various components of a staircase: 7  
(b) What are the safety devices of an elevator ? How the handling capacity of lift is estimated ? 7
6. (a) What are the effects of lightning discharge ? How a building is protected against lightning ? 7  
(b) What are the methods of earthing ? Explain any one in detail. 7
7. (a) Explain various water proofing treatments. 7  
(b) What are the causes of corrosion of metals ? Describe preventive measures. 7
8. (a) Describe fire triangle in the context of combustion. 7  
(b) How a fire damaged building is evaluated for the effect of fire ? What precautions should be taken while examining such buildings ? 7
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