

**B.Tech. Civil (Construction Management)**

**Term-End Examination**

**June, 2010**

**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 is the purpose of aeration in water treatment ? Discuss the factors affecting aeration. 7
- (b) Describe the maintenance of ground level water tanks. 7
2. (a) Discuss various methods for the disposal of solid waste. Explain vermi composting. 7
- (b) Describe following with neat sketches : 7  
Drop man-hole, Inverted siphon, intercepting trap.
3. (a) Discuss the various parameters for the design of power supply scheme. 7
- (b) What do you mean by illumination ? 7  
Discuss Wein's law and Stefan Boltzman's law with respect to incandescent lamps.

4. (a) Name different types of staircases. Plan a dog legged stair for a residential building in which the vertical distance between the floors is 3.6 m. The hall measures 2.5 m × 6 m. 7
- (b) Discuss various aspects considered for determining the capacity and number of lifts to achieve a desired quality of service. 7
5. (a) Discuss the effects of lightening discharge. How a building is protected against lightening ? 7
- (b) What are the objectives of ventilation ? How the ventilation requirement is estimated ? 7
6. (a) What are the modern building chemicals for improving water tighteners ? Discuss the causes of corrosion. 7
- (b) What is fire load ? How fire can be controlled in high rise buildings ? 7
7. Write short notes on *any four* of the following : 4 × 3½ = 14
- (a) Specifications of filter sand
- (b) Construction of sewers
- (c) Methods of wiring
- (d) Role of escalators
- (e) Natural ventilation
- (f) Physics of fire
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