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No. of Printed Pages : 2

ET-581(C)

**B. TECH. CIVIL (CONSTRUCTION  
MANAGEMENT) (BTCM)**

**Term-End Examination**

**June, 2019**

**ET-581(C) : BUILDING SERVICES**

*Time : 3 Hours*

*Maximum Marks : 70*

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**Note :** *Answer any five questions. All questions carry equal marks. Draw sketches neatly, wherever required.*

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1. Explain different methods of disposal of solid waste. 14
2. (a) What are coagulant aids ? How are they beneficial in water treatment ? 7  
(b) Explain the following : 7
  - (i) BOD
  - (ii) COD
3. Discuss in detail how a tall building is protected against lightning. 14
4. (a) Explain UPS. 7

**(A-11) P. T. O.**

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- (b) What safety precautions are taken in Electrical Installations ? 7
5. What are different types of elevators used for buildings ? Explain the operation of an elevator. 14
6. (a) How can you design a lightning protection system ? Discuss. 7
- (b) Explain the different methods of Earthing. 7
7. (a) What are the causes of corrosion in buildings ? 7
- (b) Discuss the process of dehumidification of moist air. 7
8. Write short notes on the following :  $4 \times 3 \frac{1}{2} = 14$
- (a) Air-conditioning
- (b) Staircase
- (c) Fire-fighting equipment
- (d) Plumbing