

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

**Term-End Examination**

00502

December, 2016

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

*Time : 3 hours*

*Maximum Marks : 70*

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

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1. (a) Discuss quality of water from different sources for civil construction.  
(b) Explain the working of slow sand filters with the help of a neat sketch. *2×7=14*
  
2. (a) Write a short note on manhole.  
(b) Discuss the different types of materials used for sewer construction. *2×7=14*
  
3. (a) State the different types of electrical wiring for a building. Briefly explain their working.  
(b) Explain in brief HPMV lamp and its working principle. *2×7=14*

4. (a) Discuss the different types of staircases used in buildings.
- (b) Describe the procedure for selection of elevator for a tall building.  $2 \times 7 = 14$
5. (a) What are the design considerations for lightning protection systems ?
- (b) Describe in brief about pipe earth electrodes as used in civil construction.  $2 \times 7 = 14$
6. (a) Describe in brief psychrometric charts and their application.
- (b) Discuss mechanical ventilation in brief.  $2 \times 7 = 14$
7. (a) What are the different types of paints used in buildings ? State their application methods in brief.
- (b) What are the hazards of fire in a tall building ? State how they are prevented in a proper fire-fighting arrangement.  $2 \times 7 = 14$
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