

BACHELOR OF ARCHITECTURE (B.Arch.)

Term-End Examination

00173

June, 2018

**BARE-072 : ADVANCED BUILDING SERVICES
(ELECTIVE 1)**

Time : 3 hours

Maximum Marks : 70

*Note : Question no. 1 is **compulsory**. Attempt **five** questions in total. All questions carry equal marks. Support with neat sketches.*

1. Write short notes on any **four** of the following :

$$4 \times 3 \frac{1}{2} = 14$$

- (a) Hydro-pneumatic System
- (b) Chemical Oxygen Demand (COD) and Biological Oxygen Demand (BOD)
- (c) PBX and EPBX
- (d) Round Trip Time (RTT)
- (e) Incineration

2. Detail out and design a distribution system for a residential complex while computing water demand and special demands.

14

3. What do you understand by recycling of sewage ? Elaborate over various methods and recycling techniques for urban complexes. 14

 4. Design an electrical system for a residential tower with 2 units on each floor (5 storey high building). Each unit is provided with a separate meter, 4 numbers of 40 watt fluorescent fittings, 2 ceiling fans, 2 numbers of 5 A single-phase sockets and 3 numbers of 15 A single-phase sockets. 14

 5. Differentiate between passenger and freight elevators. Explain with neat sketches about the working operation and mechanism of a hydraulic lift. 14

 6. Discuss in detail the various methods of fire prevention in buildings as prescribed by the National Building Code. 14
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