

**B.Tech. CIVIL ENGINEERING (BTCLEVI)**

**Term-End Examination**

00095 **December, 2014**

**BICE-009 : BUILDING TECHNOLOGY – II**

*Time : 3 hours*

*Maximum Marks : 70*

---

*Note : Answer any **seven** questions. Assume any other data if necessary. All questions carry equal marks.*

---

1. Define comfort zone. Explain the various thermo-physical properties of building materials. 10
2. What is solar-air temperature ? In which situation is this more important than air temperature ? What are the ways in which buildings would gain heat in a tropical climate ? 10
3. What are the roles of ventilation in a building ? Explain with neat sketches, how the external devices influence air movement inside a building. 10
4. Outline the systems and components of fire escape for high-rise buildings. 10

5. Explain in detail about various types of stairs. Also explain the design considerations of it. 10
6. What are the general principles of acoustic design ? Explain the various methods of sound insulation in buildings. 10
7. Why is an expansion joint needed in a building ? What are the guidelines for its location ? 10
8. Outline the typical method, components and details of water supply and sewage disposal for a multi-storied apartment building. 10
9. What are the various modes of vertical transportation ? Explain any two of them in detail. 10
10. Write short notes on any *two* of the following :  $2 \times 5 = 10$
- (a) Classification of climate
  - (b) Failure of concrete
  - (c) Daylighting
-