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B.Tech. CIVIL ENGINEERING

Term-End Examination

December, 2012

BICE-009 : CIVIL ENGINEERING

Time : 3 Hours

Maximum Marks : 70

Note : Answer any seven questions.

1. Explain briefly "Solar temperature concept" and various sun control devices. 10
2. What do you understand by thermal insulation of buildings ? Why is it necessary ? Give its advantages. 10
3. Explain the various types of joints in Steel frames. Also write a brief note on design considerations of tall buildings. 10
4. Discuss important considerations on planning, materials of construction and construction techniques to ensure adequate protection of structures against fire. 10

5. Explain in detail about various types of stairs. 10
Also explain the design consideration of it.
 6. What is the need of ventilation in building ? 10
Describe briefly the functional requirements of a good ventilating system.
 7. What is air conditioning as applied to buildings ? 10
State the objects or purposes of air conditioning.
Explain the parts and operation of a a/c plant.
 8. What do you understand by the terms 'Acoustics and Acoustics of a building' ? 10
What are the requirements for good acoustics ?
 9. What are the general principles of acoustic design ? 10
Explain the various methods of sound insulation in buildings.
 10. Write brief notes on *any two* of the followings : 2x5=10
 - (a) Classification of climates
 - (b) Failure of concrete
 - (c) Artificial lighting
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