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No. of Printed Pages : 2

BICE-009

B.Tech. CIVIL ENGINEERING (BTCLEVI)

Term-End Examination

December, 2015

BICE-009 : BUILDING TECHNOLOGY – II

Time : 3 hours

Maximum Marks : 70

Note : Answer any *seven* questions. All questions carry equal marks.

1. Explain briefly “Solar temperature concept” and various Sun control devices. 10
2. State various factors which are responsible for heat transference in buildings. Also explain about external shading devices. 10
3. What are framed structures ? Describe the advantages of pre-fabricated structures. 10
4. Discuss the important factors considered in planning, selection of materials of construction and the construction techniques to ensure adequate protection of structures against fire. 10

5. What are the different types of concrete failure ? Explain any one of them with emphasis on causes and remedial measures. 10
6. (a) Give an assessment of the requirements of a good stair. 7
 (b) Give a list of types of staircases. 3
7. (a) Explain the general rules for natural ventilation. 5
 (b) What is meant by air-conditioning ? Describe the selection criteria adopted for air-conditioning of a building. 5
8. (a) What is the role of mounting height in determining the quantity of artificial light ? Explain briefly. 5
 (b) Write briefly the sewage disposal arrangement for a four-storied building with the help of a suitable sketch. 5
9. What are the general principles of acoustic design ? Explain various methods of sound insulation in buildings. 10
10. Write brief notes on any *two* of the following : 2×5=10
 (a) Classification of Climates
 (b) Joints in Steel Frames
 (c) Thermal Insulation