

B.Tech Degree VIII Semester Examination

May 2003

CE 803 CONSTRUCTION SAFETY AND FIRE ENGINEERING

(1999 Admissions)

Time: 3 Hours

Maximum Marks: 100

(Provide neat sketches wherever required)

- I. Mention the significance of National Building Code of India and how it can be made effective in construction operations. (20)
- OR**
- II. Explain how technological, organisational and behaviour factors affect the safety in construction industry. (20)
- III. Write a detailed note on working in confined places, bringing out the extra precautions to be taken while working in such conditions. (20)
- OR**
- IV. Discuss in detail the safety points in : (20)
- (i) Scaffolding in external wall painting using bamboos.
 - (ii) Handling hazardous materials.
- V. (a) Explain the influence of temperature on stress-strain behaviour of concrete and steel. (15)
- (b) Explain with example, how building materials are classified according to their resistance to fire. (5)
- OR**
- VI. (a) Discuss the influence of temperature on the Modulus of Elasticity and Creep characteristics of concrete. (10)
- (b) Explain the importance of duration of fire in a structure. (10)
- VII. Write short notes on : (10)
- (i) Design of fire resistant walls. (10)
 - (ii) Fire resistant ceilings. (5)
 - (iii) Fire screen. (5)
- OR**
- VIII. (a) Write short notes on 'fire stopped areas in connecting structures.' (5)
- (b) What is the effect of plastics when exposed to higher temperature ? (10)
- (c) How reinforced concrete structural members are protected from fire ? (5)
- IX. (a) Explain the methods adopted for reinstatement of damaged building. (10)
- (b) Discuss the important factors to be considered while repairing a fire-damaged concrete beam. (10)
- OR**
- X. (a) Explain the fire safety requirements of Industrial buildings. (10)
- (b) Discuss how important structural elements like beams and columns are reinstated. (10)

