

B. Tech Degree VIII Semester Examination, April 2009

CE 803 CONSTRUCTION SAFETY AND FIRE ENGINEERING (1999 Scheme)

Time : 3 Hours

Maximum Marks : 100

- I. (a) State the main Acts, Rules and Regulations pertaining to construction safety in India. (10)
(b) Explain the main clauses to be included in a construction contract pertaining to safety and health. (10)
- OR**
- II. Explain the main clauses and their implications pertaining to construction safety included in NBC. (20)
- III. State and explain the main safety measures to be adopted in the case of following operations :
(i) underwater works
(ii) working in confined spaces. (20)
- OR**
- IV. (a) State the project environments and those factors affecting safety. (10)
(b) Prepare an action plan of an inspection team which is to inspect construction work of a prestressed concrete bridge. (10)
- V. Explain the effects of fire on the properties of following materials :
(i) Masonry (ii) Concrete (20)
- OR**
- VI. What do you understand by fire resistance of structural members and fire resistance of buildings? Suggest measures to improve the fire resistance of structural elements like beams and columns. (20)
- VII. Explain the techniques of construction of fire resistant walls and ceilings. (20)
- OR**
- VIII. Write brief notes on the following :
(i) Fire stopped areas
(ii) Fire transmission between buildings
(iii) Fire protection of wooden members
(iv) Fire protection of RCC members. (20)
- IX. State the fire safety requirements of an industrial building manufacturing fertilizers and chemicals. (20)
- OR**
- X. State the procedures and methods of assessing the fire severity and residual strength of fire damaged structural members. State the procedure of reinstating fire damaged concrete (RCC) columns. (20)

