

B.Tech. Degree VIII Semester Examination, April 2009

SE 801 HAZARD CONTROL TECHNOLOGY

(1999 Scheme)

Time: 3 Hours

Maximum Marks: 100

- I a) Briefly explain the hazards associated with the piping in process industries? How will you control it? (10)
b) List the various manual materials handling aids? Explain the proper procedure for lifting an object. (10)
- OR**
- II a) Explain the role of house keeping in accident prevention in an industry? How will you achieve proper house keeping? (10)
b) With suitable example explain how proper layout of plant reduce the accidents? (10)
- III a) With neat sketch explain the working of "safety trip control". (10)
b) What do you mean by "point of operation" give four example? (10)
- OR**
- IV a) Explain the various types of pressure vessels used in industry? Briefly explain the safety requirements of each type. (12)
b) Briefly explain the hazards associated with power press? (8)
- V With neat sketch explain the working of a EOT crane. Explain the various safety features and safe operating procedures of EOT cranes. (20)
- OR**
- VI Write Short notes on:
i) Presence - sensing device
ii) Special - feeding tools
iii) Hydro testing of boiler
iv) Boiler safety valve
v) Chain slings (4 x 5 = 20)
- VII a) Explain the terms "Ionizing" and "Non Ionizing" radiations with examples. Also list the sources of ionizing and non ionizing radiations. (12)
b) Explain the various widely accepted unit of radiation. (8)
- OR**
- VIII a) Explain the various biological effects of non ionizing radiations. (10)
b) Differentiate particulate and electro magnetic radiations. (10)
- IX a) With neat sketch explain the working of scintillation counter. (10)
b) Compare Geiger mullar counter and proportional counter. (10)
- OR**
- X Write Short notes on:
i) ALARA
ii) Crystal dosimeter
iii) Transporting radio active materials
iv) Ionization chambers (4 x 5 = 20)

