B.Tech Degree VIII Semester Examination May 2003

SE 801 HAZARD CONTROL TECHNOLOGY

(1999 Admissions)

Time: 3 Hours Maximum Marks: 100

(All questions carry Equal marks)

I. (a) Discuss the various aspects of plant lighting and explain how these influence the efficient and safe working of the plant.

(b) Explain the colour coding system in a process industry.

OR

II. (a) Explain how material storage and house-keeping contribute to the hazard control system in a factory.

(b) What does 'OSHA' and 'ANSI' stand for ? What are their regulations for handling hazardous materials ?

III. (a) Explain the main sources of mechanical hazards from a moving machinery.

(b) What are the basic requirements for a mechanical guard ?

OR

IV. (a) Enumerate the merits and demerits of hand removal devices employed, as a safety device.

(b) Explain two types of safety trip controls on a continuously running machine.

V. (a) Discuss how automation can be employed as a hazard control technique.

(b) Explain the basic elements of an automated system.

OR

VI. (a) What are the different safety devices on a boiler ? Explain.

(b) Explain the hydrostatic test procedure for a pressure vessel.

VII. (a) Explain briefly the milestones in the development of atomic power.

(b) What is electromagnetic radiation ? How does this transmit energy ?

OR

VIII. (a) Explain ionizing and non-ionizing radiations with examples.

(b) Explain the units of Radiation measurement.

IX. (a) Briefly describe any two of the radiation detection and measuring devices.

(b) What are the major personnel monitoring devices for radiation control ?

OR

X. (a) Explain the various aspects of safe storage of radio active materials.

(b) What is LASER ? What are the biological effects from exposure to laser ?

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