

B. Tech Degree VII Semester (Supplementary) Examination June 2011

SE 703 SAFETY IN ENGINEERING INDUSTRY (2006 Scheme)

Time : 3 Hours

Maximum Marks : 100

PART – A (Answer ALL questions)

(8 x 5 = 40)

- I. (a) What are the basic forging operations? List.
 (b) List out the merits and drawbacks of cold working.
 (c) What are the different types of devices used for guarding? Explain briefly.
 (d) What is “ring test”? Explain.
 (e) What are the different fumes and gases evolved during welding? List.
 (f) What types of radiations are associated with welding? List and state effects of each.
 (g) Write down the procedure for safe manual handling.
 (h) List out and explain the standard material handling techniques.

PART – B

(4 x 15 = 60)

- II. List out the various aspects of safety in an Engineering Industry and explain in detail. (15)
- OR**
- III. (a) What are the various production equipments employed inside a foundry? Explain **any five**. (10)
 (b) What are the hazards associated with forging hammers? List. (5)
- IV. (a) What are the basic requirements of a machine guard? (5)
 (b) What are the different methods of feeding material into the point – of – operation of a press during secondary operation? Explain **any four**. (10)
- OR**
- V. (a) What are the safety instructions to be followed in a machine shop with respect to the following? (8)
 (i) Machine tools
 (ii) Hand tools
 (b) What are the features of good ventilation inside a machine shop? (7)
- VI. (a) What are the safety precautions to be followed during gas welding with reference to the following? (10)
 (i) Storing of gas cylinders
 (ii) Handling of gas cylinders.
 (b) What are the different PPEs used in a welding shop? Explain briefly. (5)
- OR**
- VII. (a) What are the hazards associated with salt baths in a heat treatment plant? (10)
 (b) Write down the procedure for neutralizing cyanide salts. (5)
- VIII. (a) What are the different types of cranes used in engineering industries? List and explain any two with sketches. (10)
 (b) Draw the schematic diagrams for the power train of the different movements of an E.O.T. crane. (5)
- OR**
- IX. (a) What are the different types of conveyors used for material handling? List and explain any two with sketches. (10)
 (b) List out and explain the common accessories used in material handling. (5)