

Industrial Safety and Environment
(ME-402, DEC 2006)

Time: 3 Hrs
Max Marks: 60

Note: Section A is compulsory. Attempt any four questions from Section B and any two from Section C.

Section-A

1. a) Why is safety at work prominent?
b) Define the term ergonomics.
c) List various costs associated with an accident.
d) How is safety and productivity related at a work place?
e) Distinguish the terms fatigue and boredom.
f) Distinguish sound and noise.
g) How illumination at a factory improves quality?
h) How is ISO 14000 strengthened from safety perspective?
i) List various industrial wastes and their treatment.
j) List the legislative measures taken up to ensure safety at work.

Section-B

2. What is occupational disease? How is the worker protected against these ills in various work environments?
3. How is disaster control implemented right from plant layout and design?
4. Write about legislation measures taken up with reference to waste disposal of industries.
5. Why is it essential that new products be thoroughly analyzed from a safety point of view before they are manufactured?
6. Describe principles of motion economy and their importance towards safety at work.

Section-C

7. Define natural frequency of vibrations and its importance in the design of laying out machine tools at a shop floor.
8. How is heat exposures affect the worker at the shop floor and describe the method of air conditioning and insulations employed?
9. Write short notes on the following:
 - a) Accident costs
 - b) Plans for safety
 - c) Color standards of work place
 - d) Environment standards