

AMEV-18 OCCUPATIONAL HAZARDS AND INDUSTRIAL SAFETY

OBJECTIVES:

To introduce the occupational hazards, industrial safety issues, control measures and emergency procedures.

UNIT I INDUSTRIAL ATMOSPHERIC CONTAMINANTS AND HEALTH HAZARDS

Industrial atmospheric contaminants – types. Industrial Health Hazards - effects of al pressure, humidity, temperature - radiation, light, noise, electricity - accidents, occupational diseases, infections.

UNIT II INDUSTRIAL TOXICOLOGY AND INDUSTRIAL HYGIENE SURVEY

entry of toxic substances into the human body - long term and term Modes of short effects - industrial toxicology. Threshold Limit Values, kinds of exposure standards, pollutant concentrations, Industrial Hygiene Survey - Diagnosis - Remedial measures - Occupational Health and Safety Management System (OHSMS) - BS OSHAS 18001.

UNIT III INDUSTRIAL VENTILATION

Industrial Ventilation - general principles of air flow - general dilution al ventilation - comfort ventilation. Local exhaust ventilation - principles of hood and duct design - duct system design - fans.

UNIT IV CONTROL MEASURES

Air cleaning Devices - relative efficiencies - Testing of local exhaust ventilation systems. 25 Industrial Noise Control - general engineering principles of control - standards

UNIT V INDUSTRIAL ILLUMINATION AND INDUSTRIAL PLANT SANITATION

Industrial illumination - glare – types & levels of illumination. Industrial sanitation l plant - Housekeeping - worker facilities.

OUTCOMES:

The students completing the course will have
an understanding of industrial toxicology, health hazards of industrial environment and control measures
ability to recognise and report industrial hazards, follow safe work practices and participate in hazard inspection
Understanding of emergency procedures, safety law and employer and employee responsibilities

TEXT BOOKS:

Patty, "Industrial Hygiene and Toxicology", Wiley Inter science, 1-7-
John.V .Grimaldi and Rollin. H Simonds, "Safety Management", All India traveler book seller, New Delhi, 1-8-

Krishnan N.V, "Safety in Industry", Jaico Publisher House, 1--6.

REFERENCE:

Industrial Ventilation Manual, American Conference of Government Industrial Hygienists, 1--3