



SYLLABUS

THEORY

Definition, scope and importance. Ecosystem: types, structure and functions. Food chains. Bio-diversity uses, threats and conservation. Natural resources: Forest, mineral, soil and water-their uses and abuses. Environmental pollution- causes and effects. Control measures of air, water, soil, marine, thermal and noise pollution. Nuclear hazards. Bio-safety and risk assessment. Environment Protection Acts and related issues. Disaster management.

Sources of water supply and water quality. Sources of water contamination. Bacteriology of water. Physical, chemical, microbiological and biological evaluation of water. Water purification. Disposal of sewage and farm wastes. Health implications of farm wastes. Sanitation and disinfection of animal houses. Recycling of farm wastes. Sources of air pollution within animal houses and its effect on animal health and production. Ventilation and ventilation systems within animal houses and specialized laboratories. Prevention and control of air and water-borne diseases. Problems of atmospheric pollution (acid rain, depletion of ozone layer, methane production, green house effect and global warming). Tannery, wool, bone and blood meal industry pollution and its control. Stray and fallen animal management. Pollution due to industrial wastes.

PRACTICAL

Sampling of water for sanitary examination. Physical examination of water. Estimation of colour, turbidity, total hardness, solids, alkalinity and acidity of water. Chemical and Microbiological evaluation of water quality. Disinfection of animal houses. Determination of the efficacy of disinfectants. Demonstration of water purification system. Disposal of carcasses. Pathogenic microbes in air. Demonstration of various ventilation systems in animal houses. Demonstration of toxic residues in water and air. Visit to local polluted sites and documentation of local environmental problems.