

-Community Health(3302)

Part One:

- Indoor air pollution
 - Sources of air pollution
 - Characterizing indoor air
 - Buildings associated illnesses
 - Sick Building syndrome
 - Mass psychogenic illness
 - Building Hypersensitivity pneumonitis
 - Legionnaires disease
 - Illness due to specific contaminants
- Transport hazards
 - Types and characteristic of transport hazards
- Plumbing
 - Introduction
 - Basic principles of good plumbing system
- Hospital Hygiene
 - Introduction
 - Epidemiology
 - Sources
 - Prevention and control
- Port Health
 - Introduction
 - Activities
 - Hazards
 - Pesticides
 - Disease control
 - International certifications
- Global warming
 - Ozone Depletion
 - Green house effects
- Acid precipitation
- Housing and Health
 - Introduction
 - Housing standard
 - Over crowding
 - Water
 - Private public water
 - Swimming pools
 - Water purification
 - Pollution of ground water
 - Lagoon treatment
- Sewage

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- Introduction
- Sewage hazards
- Disposal
- Treatment
- Regulation
- Resort Environment
 - General information
 - Standard
 - Evaluation
 - Control
- Air Quality management
 - Environment and human
 - Ecosystem
 - Environmental pollution
 - Environmental problems and health problems
 - Evaluation
 - Control
- Industrial wastes
 - Characteristics of wastewater
 - Volumes of industrial wastes
 - Population Equivalent
 - Reduction at sources
 - Examples
 - Treatment: process, modification segregation, Equalization, strength reduction
- Technological aspects of solid wastes
 - Hazardous wastes
 - Public health and ecological aspects of solid wastes
 - Programs for solid wastes disposal
 - Wastes and diseases

Part Two:

- Environment and Health
- Natural and Human made disasters
- Introduction - Classification - Sudden disasters
- Insidious and continuing disasters - War and civil conflict
- Health consequences of disasters - Primary prevention
- Secondary prevention -Assessment and surveillance of disasters
- Implementation of disasters relief
- Evaluation of health response - Refugees
- Health consequences of mismanagement of disaster

- Occupational Health (I) (3308)

- Occupational Hygiene
- Technological aspect of environmental pollutants monitoring at workplace
 - Chemical hazards
 - Physical hazards

- Health effects of some chemicals
 - Cadmium
 - Chromium
 - Polychlorinated biphenls
- Biological monitoring at the work place

- Pesticides
 - Introduction
 - Types
 - Pollution
 - Health effects
 - Transport
 - Disposal
 - Selection

- Risk Assessment
 - Ergonomic
 - Survey design
 - Occupational stress

- Specific – Radiation
Concept of radiation, Radiation Hazards, Biological effects, Medical application of radiation, Radiation protection

- Ecology(3305)

Part One: Ecology

- Introduction
 - Biosphere
 - Natural Environment
 - Component of environment
 - Environmental problems
- Soil
 - Chemistry of soil
 - Present materials
 - Climate and weathering
 - Formation of soil
 - Mineral skeleton
 - Air content
 - Water content
- Types of soils
 - Salt affected soil
 - Origin, classification
 - Effect of salinity on plant
 - Growth and soil properties
- Salt Tolerance
 - Physiological and biochemical
 - Basis
 - Reclamation of salt
 - Salt affected soil
 - Fertilizers
- Ecosystem
 - Concept of an ecosystem
 - Component (biotic and abiotic factors)
 - Examples of ecosystem
 - Pond Meadow
 - Forest
 - Desert
 - Rivers
 - Springs
 - Sea
 - Ocean
- Diversity and stability of ecosystem
- Disturbance of ecosystem
- Interaction in Ecosystem
 - Cycling of materials
 - Gaseous and sedimentary cycles
 - Nitrogen cycle
 - Sulphur cycle
 - Phosphorous cycle
 - Global cycle
- Recycle pathways
 - Liebig's Law
 - Limiting factors concept

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- Ecological indicators
- Water cycle
 - Precipitation
 - Increased run off
 - Use and over use of ground water
 - Water conservation
- Productivity of Ecosystem
 - Energy flow within the ecosystem
 - Food chains
 - Food webs
 - Trophic levels
 - Relationship between energy flow and standing crop
 - Production and utilization rates
 - Grazing and detritus food chains
 - Models of energy flow
- Natural Resources
 - Renewable and non renewable resources
 - Air and water resources
 - Mineral resources
 - Agriculture and forestry oil and gas
 - Fossils and their uses in oil exploration
- Energy sources and their environmental impact
- Concept of Environmental Energy

Part Two: Meteorology

- Geography of climate and environment
- Meteorology and climatology
 - Microclimatology
 - Applied climatology
- Climate and health
 - Solar Insolation
 - Temperature
 - Humidity
 - Atmospheric pressure
 - Wind
 - Atmospheric disturbance
 - Lightning
 - Fog
- Climate and Disease
- Climate and comfort
- Climate and food
- Categories of environment and problems related
 - Alluvial Environment
 - Coastal Environment
 - Cold Environment
 - Mountain Environment
 - Tropical Environment
 - Desert Environment
- Environmental Health Aspect of Desert life
 - Environmental Disasters
 - Physical disasters - Human disasters

- Public Health Pest (3304)

1. Introduction
- 1.2 Definition of Terms
- 1.3 Insects of Medical Importance
- 1.4 Insects as causes and vectors of disease
- 1.5 Ways of Vector Borne Disease Transmission
- 1.6. Insects of Public Health Importance Introduction
2. Anophelinae
 - 2.1 External morphology
 - 2.2 Life cycle
 - 2.3 Medical importance
 - 2.4 Control
3. Culicinae (Culex, Aedes)
 - 3.1 Distribution
 - 3.2 External morphology
 - 3.3 Medical importance
 - Arboviruses
 - 3.4 Control
4. Black- flies
 - 4.1 External Morphology
 - 4.2 Life Cycle
 - 4.3 Medical importance
 - 4.4 Control
5. Phlebotomine (Sand-Flies)
 - 5.1 External Morphology
 - 5.2 Life Cycle
 - 5.3 Medical Importance
 - 5.4 Control
6. Biting Midges (Ceratopogonidae)
 - 6.1 External Morphology
 - 6.2 Life Cycle
 - 6.3 Medical Importance
 - 6.4 Control
7. Horse fly (Tabanidae)
 - 7.1 External Morphology
 - 7.2 Life Cycle
 - 7.3 Medical Importance
 - 7.4 Control
8. Tsetse- flies, (Glossinidae)
 - 8.1 External Morphology
 - 8.2 Life Cycle 38
 - 8.3 Medical Importance
9. House fly (Muscidae)
 - 9.1 The common house- fly (Musca domestica)
 - 9.1.1 External Morphology
 - 9.1.2 Life Cycle
 - 9.1.3 Medical Importance
 - 9.1.4 Control
10. Fleas (Siphonaptera)
 - 10.1 External Morphology

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- 10.2 Life Cycle
- 10.3 Medical Importance
- 10.5 Control of Fleas
- 11. Sucking lice (Anoplura)
 - 11.1 The Body Louse (*Pediculus humanus*)
 - 11.1.1 External Morphology
 - 11.1.2 Life Cycle
 - 11.1.3 Medical Importance
 - 11.1.4 Control
 - 11.2 The Head Louse (*Pediculus capitis*)
 - 11.2.1 External Morphology
 - 11.2.2 Life Cycle
 - 11.2.3 Medical Importance
 - 11.1.4 Control 57
 - 11.3 The Pubic Louse (*Phthirus pubis*)
 - 11.3.2 Life Cycle
 - 11.3.3 Medical Importance
 - 11.3.4 Control
- 12. Bedbugs (Cimicidae)
 - 12.1 External Morphology
 - 12.2 Life Cycle
 - 12.3 Medical Importance
 - 12.4 Control
- 13. Triatomine Bugs (Triatominae)
 - 13.1 External Morphology
 - 13.2 Life Cycle
 - 13.3 Medical Importance
 - 13.4 Control
- 14. Cockroaches (Blattaria)
 - 14.1 External Morphology
 - 14.2 Life Cycle
 - 14.3 Medical Importance
 - 14.4 Control
- Other Classes of Public Health Importance
- Arachnids
- Ticks
 - 15. Soft ticks (Argasidae)
 - 15.1 External Morphology
 - 15.3 Life Cycle
 - 15.4 Medical Importance
 - 15.5 Control
 - 16. Hard ticks (Ixodidae)
 - 16.1 External Morphology
 - 16.2 Life Cycle
 - 16.4.1 Medical Importance
 - 16.5 Control
- 17. Mites
 - 17.1 Scabies Mite (Sarcoptidae)
 - 17.1.1 External Morphology
 - 17.1.2 Life Cycle

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- 17.1.3 Treatment of scabies
- 18. Scorpion
 - 18.1 External Morphology
 - 18.2 Medical Importance
- 3. 18 Treatment of scorpion sting
- 19. Spider
 - .19.1 Biology and Habits of Spider
 - 19.2 External Morphology
- 3 .19 Public Health Importance
- 19.4. Control measures
- . 20. Centipedes
 - 20.1 External Morphology
 - 20.2 Medical importance
- 21 . Millipedes
 - 21.1 External Morphology
 - 21.2 Medical Importance
- 22. Crustacean
 - 22.1 External Morphology
 - 22.2 Public Health Importance:
 - 22.3 Medical Importance
 - 22.4 Prevention and Control
- 23. Molluscus
 - 23.1 Life Cycle:
 - 23.2 Public Health Importance:
 - 23.3 Prevention and control

- Analytical Chemistry(3306)

- Analytical chemistry
- Introduction about chemical (analytical) calculation
- Titrimetric Analysis
- Acid base titration
- Redox Titration
- Complexometric titration
- Precipitation titration
- Gravimetric titration

- Health Legislation (3410)

- Regulation related to environment
- Air protection
- Sea protection
- Water protection
- Food protection
- Improvement of environment
- Zoonotic diseases protection
- Soil protection
- Plants protection
- Under ground water protection
- Ionizing radiation protection

- Communicable & Non Communicable Diseases (3113)

- Non Communicable diseases

- Introduction on non communicable diseases
- Degenerative diseases
 - Osteoarthritis
 - Rheumatoid arthritis
 - Osteoporosis
 - Multiple sclerosis
 - Parkinson disease
 - Age related muscular degeneration
- Hypertension
 - Stroke
 - Rheumatic fever
 - Rheumatic Heart
- Cancer
 - Epidemiology of certain type of cancer
 - Diabetic Mellitus
 - Chronic respiratory diseases
 - Chronic obstructive lung diseases
 - Bronchial asthma
 - Health effects of smoking
 - Epidemiology and risk factors of accidents

- Communicable diseases

- 1- Terminology of infectious diseases.
- 2- Classification of communicable diseases.
- 3- Dynamic of disease transmission.
- 4- Sterilization, Disinfection, Disinfectants used in hospitals.
- 5- Immunization.
- 6- Air Borne infections:-
 - Epidemiology, prevention and control measures of:
 - Acute respiratory infection (A121).
 - Streptococcal infection.
 - Chicken pox.
 - Small pox eradication.
 - Measles and German measles.
 - Diphtheria.
 - Pertussis.
 - Mumps.
 - Influenza.
 - Tuberculosis.
 - Agent factors of communicable diseases.
- 7- Water and food Borne infections:-
 - Epidemiology, prevention and control measures of:
 - Acute diarrheal diseases.
 - Cholera (vibriosis).

- Typhoid and paratyphoid fever.
- Poliomyelitis.
- Hepatitis (A) and Hepatitis (E).
- Food poisoning.

8- Zoonotic diseases:-

- Epidemiology, prevention and control measures of:
 - Yellow fever.
 - Brucellosis.
 - Rabies.
 - Rickettsial diseases.
 - Hydatid diseases (Echinococcosis).
 - Plague.
 - Anthrax.
 - Toxoplasmosis.

9- Sexually transmitted diseases.

- Classification, Epidemiological, portance, prevention and control measures of:
 - Acquired ummunodeficiency syndrom (HIV – AIDS).
 - Hepatitis B and Hepatitis C.

10- Vector Borne diseases.

- Malaria.
- Schiestosomiasis.
- Leishmaniasis.
- Worm infestation (Hook worm, scariasis, and Taeniasis).
- Parasitic diseases:- Amaebiasis and Toxoplasmosis.

11- Surface infections.

- Tetanus.
- Leprosy.

-Forensic Medicine(3117)

- Death and postmortem changes
 - Identification of
 - Burns
 - Scalds
 - Electric injuries
 - Death associated with pregnancy, delivery and abortion
 - Child abuse
 - Food poisoning
 - Insecticides poisoning
 - Addiction
 - Classification of toxic effects
 - Teratogenesis
 - Chemical carcinogenesis
 - Necrosis (tissue damage)
 - Interruption of biological functions
 - Allergies
 - Idiosyncratic reaction
 - Toxic Agents
 - Heavy metals
 - Organic solvents
 - Agriculture toxicology
 - Animal toxins
 - Plant toxins
 - Household preparation
 - Toxicology of chemical warfare agents (chemical weapons)
 - Introduction
 - Concept and use of chemical weapons
 - Mustard gas
 - Phosgen
 - Hydrogen cyanide
 - Tear gas
 - Riot control agents
 - Industrial toxicology
 - Petroleum distillates and turpentine
 - Microelectronic industry
 - Chlorinated hydrocarbons
 - Aromatic hydrocarbons
 - Alcohol
 - Environmental toxicology
 - Air pollution
 - Water pollution
 - Soil pollution
 - Radiation toxicology
 - Field decontamination of hazardous materials
 - Hazard identification
 - Field decontamination
 - Prevention

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- Decontamination management
- Techniques of decontamination
 - Physical
 - Chemical
- Decontamination Equipment's
- Radiation Decontamination
 - Detection
 - Equipment
 - Nine point decontamination
 - Pharmaco Therapy

-Computer(3115)

- Data processing
- System objective
- Analysis and Design system
- Informative committees
- Participation in analysis and design
- Step put of system
- Data sources
- Data modeling and analysis