MEDICAL ENTOMOLOGY

POST GRADUATE DEGREE STANDARD

FUNDAMENTALS OF MEDICAL ENTOMOLOGY

UNIT I
Phyletic studies - Classification of animals of all phyla(except Porifera and Protochordata) - Animal groups of medical importance.

UNIT II
Human Endoparasites - Ascaris, Liverfluke, Tapeworm, Hook worm - their life history.

UNIT III
Clasification of phylum Arthropoda - life history of Acarina - Hard Ticks - Soft tickes - Dust mite - Itch mite, Harvest mite - Class insecta - Mention of groups of Insect vectors.

UNIT IV
Comparative anatomy of various animal groups including insects-Anatomy of digestive, excretory, reproductive and nervous systems in Ascaris, Cockroach, Snail, Frog, Rat.

UNIT V
Comparative physiology of digestive, excretory, impulse transmission and reproductive systems in various animal groups like Ascaris, Cockroach, Snail, Frog and Rat.

UNIT VI
Developmental biology including experimental embryology in Mammals and Insects

UNIT VII
Cell biology at molecular level - Modern concept of Molecular biology and genetics - Eugenics - Cell environment interactions - Cellular reactions to various parasitic Organisms.
UNIT VIII
Elements of Immunology - Immunity to Human Parasites - Active acquired immunity - passive acquired immunity.

UNIT IX
Principles and Concepts of Animal Ecology - Parasitology - Host - Parasitic relationships.

UNIT X
Distribution and dispersal of animal population including insects - Ecological adaptive features among human parasites.

PAPER -II
VECTOR ENTOMOLOGY
UNIT I
Scope of Vector Entomology-Vector borne diseases-mechanisms of transmission in human beings - types of vectors and their identification.

UNIT II
Vectors of medical importance - their life cycle - epidemiology, and management-mosquitoes - houseflies - sand flies - Human lice - Tsetse flies - Human lice of different types - fleas and reduviid bugs,

UNIT III
Vectors from Class: Arachnida and Crustacea - Ticks - mites - cyclops -their life cycle and control.

UNIT IV
Vector - borne diseases-spread through mosquitoes - Malaria - filaria-viral encephalitis, viral fever, dengue, yellow fever.

UNIT V
Vector - borne diseases spread through houseflies - typhoid, paratyphoid, dysentery, diahorrhea, cholera gasteroenterilis, amoebiasis, diseases spread through sandfly - kala-azar , oriental sore, tsetsefly - sleeping sickness.

UNIT VI
Vector - borne diseases spread through louse - epidemics - typhus relapsing fever - trenchfever - Rat flea - Bubanic plague and endemic typhus.

UNIT VII
Vector - borne diseases spread through Hard and Soft tick, trombiculid mite, Itch mite and Cyclops.

UNIT VIII
Vector control - Insecticides - Use and consequences - Use of bio-control agents and biopesticides - Use of Bacillus, Predatory fish and other bio-control agents.

UNIT IX
Insecticide toxicology - Classification of insecticides of public health importance Mode of action - medical problems associated with insecticidal use - poisoning by insecticides -occupational and accidental poisoning - chemistry of antidotes to various insecticides.

UNIT X
National programmes related to vector borne diseases - Malaria - N.M.E.P - N.M.C.P. - Filaria N.F.C.P. - N.F.E.P.