

M.Sc. SEMESTER IV

Applied Freshwater Aquaculture

COURSE – 19 Fish Breeding & Production Technology

Credits –3

Paper code: MZO612 (B) Total Marks: 50 (Assignment 10 + Theory Exam 40)

BLOCK – IV: Fin Fish Pathology

Unit –12A : Infectious Diseases – Viruses, Bacteria and Fungi (Clinical picture, pathology, symptoms and prophylaxis)-Viral diseases of fish – 1. Papillomatosis, 2. Lymphocystis 3. Infectious pancreatic necrosis – Bacterial diseases of fish: 1. Bacterial haemorrhagic septicemia, 2. Bacterial gill diseases 3. Columnaris diseases:-Fungal diseases of fish: 1. Branchiomycosis, 2. Saprolegniasis.

Unit – 12B: Infectious parasitic diseases – Protozoa & Metazoan parasites (Life cycle, Clinical picture, pathology, symptoms and prophylaxis) -Protozoan diseases of fish; 1. Costiasis 2. Whirling disease 3. Ichthyophthirius -Metazoan parasites of fish & diseases caused; (Life cycle, Clinical Picture, pathology, symptoms and prophylaxis) Monogenetic Trematode parasites (Dactylogyrus, Gyrodactylus, Diplozoan), Digenetic Trematodes (Diplostomum, Sanguinicola), Cestode parasites (Ligula and Dibothriocephalus latus), -Nematodes and fish leeches. -Crustacean parasites of fish & diseases: 1. Argulus, 2. Ergasilus 3. Lerneae.

BLOCK – V: Disease Management-Polymerase Chain Reaction (PCR) Technology

Unit –13 Fundamentals – DNA Structure, Primers, Probes, Nucleases
Unit –14 Introduction to Polymerase Chain Reaction (PCR)
Unit –15 Instrumentation and Reagents
Unit –16 Electrophoresis