

**FISHERIES TECHNOLOGY / FISHERIES SCIENCE /**  
**FISHERIES TECHNOLOGY AND NAVIGATION ENGINEERING**

**(DIPLOMA STANDARD)**

**SUBJECT CODE: 327**

**UNIT –I: FISHERY BIOLOGY**

Classification of fishes – Morphometric and Meristic Characters – Length weight Relationship- Food and Feeding Habits – Reproductive Biology- Fish Physiology – Developmental Biology of Fin Fish, Shell fishes – Aquatic Ecology.

**UNIT –II: INLAND & MARINE FISHERIES**

Capture fishery resource of India – Major Riverine fisheries of India – Lake Fisheries Reservoir Fisheries – Cold Water Fisheries – Pollution in Inland Waters.

Principal Marine Fisheries of Indian Coasts–Crustaceanfishery resources-shrimps, lobsters- Molluscan resources-Gastropods, Bivalves- Sea weed Resources — Von Betalanffy's Growth equation –growth parameters – mortality parameters-Maximum Sustainable Yield-Distribution of living organisms in the Sea.

**UNIT –III: NAUTICAL TECHNOLOGY**

Compass – Navigational Charts – Mercator Projections – Buoyage System – International Codeflag signals –Navigational lights-Firefighting –Strom Signals – Distress Signals – Life Saving Appliances-Life buoy-Life jackets-Life raft.

**UNIT – IV: FISH PROCESSING TECHNOLOGY**

Proximate composition of fish –principle of fish spoilage– Rigor Mortis – Drying, Salt drying, Icing, Freezing, Canning, Fishery by products, Fish packaging technology.

**UNIT –V: AQUACULTURE**

Site selection for fish culture –composite fish culture– Plankton – Fertilization – Aqua feeds – Pond disinfection with lime -Water quality management – Disease control-common fresh water ornamental Fishes.

**UNIT – VI: OCEANOGRAPHY AND METEOROLOGY**

Waves- Tides- Currents- El – Nino – Salinity – Tsunamis – Weather – Climate – humidity- Tropical Cyclones – Atmospheric pressure.

## **UNIT –VII: FISHING GEAR AND CRAFT TECHNOLOGY**

Classification of Fishing Gear – Fishing Gear Materials –Modern Fishing gears – Trawls, Gill, Nets, Longlines Fishing Gear Accessories – Fishing Crafts of Indian Coast – Wooden boat construction – Steel boat construction – FRP boat Construction-Dry docking.– Boat building yards.

## **UNIT –VIII: FISHERY ECONOMICS**

Basic Economic terminologies – Elasticity – Price, Income – Cost, returns – Marketing – Co-operatives – Socio economic Survey – economics of fish and fish seed production system-economics of marine capture fisheries.

## **UNIT –IX: FISHERIES RESOURCE MANAGEMENT AND ADMINISTRATION**

Open Access Fisheries- Maximum Sustainable Yield (MSY),– Fishing holidays, Mesh size regulations- Growth over fishing – Recruitment over fishing – Ecosystem approach for fisheries management -EEZ-Marine fisheries regulations.

## **UNIT –X: FISHERY ELECTRICAL AND ELECTRONIC ENGINEERING**

Site selection for fish farm- types of ponds-Pumps, Aerators, Sluice, Monk- canals- types of dykes –Classification of Engines – Marine diesel Engines – parts of IC engines – Fishing machineries -Net hauler, Winch,.– Fish processing machineries.- Canning machineries-Refrigeration machineries.

Principles of electricity-Batteries- Principles of Radio Transmission-RADAR –sound propagation in water - Fish finding Equipments – Echo Sounder – SONAR — Communication Equipments – Radio Telephone.

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