

**DETAILED SYLLABUS FOR THE POST OF PROJECT OFFICER IN
APEX SOCIETIES IN KERALA STATE CO-OPERATIVE SECTOR/
KERALA STATE CO-OPERATIVE FEDERATION FOR FISHERIES
DEVELOPMENT LIMITED (MATSYAFED)**

(Cat.Nos.: 220/2020, 221/2020)

(Total – 100 Marks)

Part I (20 Marks)

Classification of fishes and major aquatic organisms with special reference to commercially important species, Aquatic biodiversity, Habitats, Food & feeding habits of fishes, Fishery biology including fish and shell fish taxonomy, Endemic and exotic fish species, Indigenous ornamental fishes, Marine ornamentals including invertebrates,. Conservation of fish resources in India, Mapping of water bodies, Resource assessment and fisheries potential, Survey and investigation of fisheries resources, Riverine Fisheries of India with special reference to fisheries of South Indian States, Fisheries of lakes, reservoirs / reservoir fisheries management. Impact of damming of Rivers, Sport fisheries in India.

Part II (5 Marks)

Marine capture fisheries in India and across the globe, Brackish water fisheries/back waters and estuaries, Methods of catching fishes; Hook and lines, Various types of nets, Parts of important nets, Injurious / harmful fishing, Making of nets, Construction of fishing vessels/marine engines. Status of fisheries development in India with special reference to Kerala.

Part III**(30 Marks)**

Culture practices, pond preparation, Aquatic weeds and their control, Pre-stocking management, Post stocking management, Supplementary feeding, Pollution of water bodies, Water quality management, Stocking of fish species, Intensive, extensive & semi intensive fish culture, culture of Indian Major Carps / exotic carps/other species of aquaculture significance like GIFT, Basa, murrels, cat fishes, Culture of cold water fish species, Composite fish culture, Propagation of fish culture in private sector, Sewage fed fisheries, Prawn and shrimp culture in India and abroad. Integrated fish farming; Paddy cum fish culture, Duck cum fish culture, Other types, RAS Technology, Bio Floc Technology, Aquaponics, Cage culture, Pen culture, Inland fish culture, Shell fish culture; shrimps, crabs and other shell fishes, Marine aquaculture in India (Pearl oysters/ oysters/clams/mussels/sea weeds/others). Fish and shell fish diseases and health management. Fish feed mills, Carp feed manufacture, Carnivorous fish feed manufacture and shrimp feed manufacture.

Part IV**(10 Marks)**

Fish genetics, Selective breeding, Hybridization, Fish spawning, maturation and development, Induced breeding/artificial spawning, Construction of Chinese/jar hatcheries and other types of hatcheries, Site selection, facilities required, rules and regulations, Cryo-preservation of fish gametes, Ornamental fisheries (breeding and management practices of various species of market demand), Commercial seed production of cultivable freshwater/brackishwater and marine fishes and shell fishes with more emphasis on commercially important species. Larval rearing, incubation and nursery rearing. Live food organisms – Culture of Chlorella, diatoms, Rotifers, Cladocerans, Artemia etc.

Part V (5 Marks)

Export / import of fish and fishery products, Fisheries products and bye products, Value addition, Health benefits of fish consumption, Post-harvest technology (various preservation methods; drying, chilling, freezing, canning and others; theories and concepts), Fish spoilage, handling, packaging, transportation through cold chain modes and methods, Product styles and marketing channels.

Part VI (5 Marks)

Fisheries Engineering (Aquaculture Engineering); Lay out / Designing of farms, Raceways, Hatcheries, Drawing of water supply, Cold chain-refrigeration engineering, Major equipment, power calculations and alternative energy sources for farming and processing.

Part VII (15 Marks)

Fisheries Statistics, Fish population dynamics, Fisheries economics. Fisheries regulations / legislation/recommendations of the various committees for fisheries conservation; Inland Fisheries Act, Various State Fisheries Acts / Regulation, Inland fisheries Act of Kerala, Kerala Marine Fisheries Regulation Act, Code of conduct for responsible fisheries/aquaculture, Role of Fish Farmers' Development Agency and implementation of various schemes under PMMSY, trawl ban regulations, recommendations of various committees constituted for fisheries development in India and Kerala, FAO, Sustainable Development Goals (SDGs), CRZ regulations, Marine protected areas, Coral reefs.

Part VIII (10 Marks)

Role of Indian Council of Agriculture Research in Development of Fisheries in India, Various ICAR and other Government institutions working for fisheries development, Fisheries Cooperative Societies, Apex Societies, Societies Acts and Regulations, Societies in Kerala and other States, MATSYAFED, National Fisheries Development Board (NFDB), Fisheries education / training, MPEDA, CAA.

NOTE: - It may be noted that apart from the topics detailed above, questions from other topics prescribed for the educational qualification of the post may also appear in the question paper. There is no undertaking that all the topics above may be covered in the question paper