

RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER

SYLLABUS FOR SCREENING TEST FOR THE POST OF FISHERIES DEVELOPMENT OFFICER (FISHERIES DEPARTMENT)

1. Taxonomy of Indian Major Carps (IMC), Catfishes and exotic food fishes: Common Carp, Grass Carp, Silver Carp, Tilapia and Pangas.
2. Biology of Indian Major Carps (IMC), Mahseer, Common carp, Grass carp, Silver carp and Tilapia.
3. Reproductive Biology; Fish maturity stages, Gonadosomatic Index, Fecundity, Ponderal Index, eggs and larval stages.
4. Induced breeding: Use of different synthetic hormones and its analogues. Stripping, Multiple Breeding & Selective breeding. Different types of fish hatcheries. Production of stunted fish seed, hybridization, Sex manipulation: Androgenesis and Gynogenesis, cryopreservation of fish gametes.
5. Pre and post stocking management of ponds for spawn, fry, fingerling and brood stock.
6. Recent advances in aquaculture: Pen culture, cage culture, Recirculating Aquaculture System, Rotational aquaculture and Organic aquaculture.
7. Monoculture, Polyculture, composite fish culture and Ornamental fish culture.
8. Integrated fish culture systems : Paddy-cum-fish, Cattle-cum-fish, Duck-cum-fish, Poultry-cum-fish, Pig-cum-fish, Horticulture-cum-fish and Sericulture-cum-fish culture.
9. Treatment of Sewage water, Sewage fed fish culture and depuration of fish.
10. Extensive, semi-intensive and intensive aquacultural systems.
11. Fish stocking ratios and densities for different size-groups of fish seed. Fish carrying capacity of water bodies. Basics of fish population dynamics : recruitment, mortality, natality, fishing effort, exploitable fish population, stock assessment and sustainable yield.
12. Natural and supplementary fish feeds, pelleted, floating and sinking feeds, larval feeds and their formulations.

13. Breeding and culture of freshwater prawn and shrimp (*Macrobrachium rosenbergii* and *L.vannamei*). Rearing of the freshwater bivalve, *Lamellidens spp.* for pearl production.
14. Fish diseases: Symptoms and causative organisms of bacterial, viral, fungal diseases, endo & ecto-parasitic and nutritional diseases and their control.
15. Fisheries extension methods and role of TOT, SHG'S & KVK'S in fisheries development.
16. Preparation of aquacultural, capture fishery and ornamental fish project proposals including budgeting and economics.
17. Salient features of Rajasthan Fisheries Act, 1953 and Fisheries rules, 1958.
18. Fish as food, identification of fresh fish, fish spoilage, rigor mortis and fish preservation. Methods of handling of freshwater fish for marketing. Water quality management for aquaculture.
19. Reservoir fisheries of Rajasthan Morpho-edaphic Index and fisheries potential, eutrophication and its management.

Note :- **Pattern of Question Paper**

1. Objective type paper
2. Maximum Marks : 100
3. Number of Questions : 100
4. Duration of Paper : Two Hours
5. All questions carry equal marks.
6. There will be Negative Marking.
