92

GOVERNMENT OF SIKKIM
DEPARTMENT OF PERSONNEL, ADMINISTRATIVE REFORMS,
TRAINING AND PUBLIC GRIEVANCES
GANGTOK

No: ER/GOS/DOP/III/29/ 136/GEN Dated: 29/03/2018

NOTIFICATION

The following rules for open competitive examination to be conducted by the Sikkim Public Service Commission in 2018 for appointment to the post of Assistant Director (Fisheries) under Sikkim State Fisheries Service are notified here under namely:-

1. The number of vacancies to be filled up after the Examination will be specified in the Notice to be issued by the Sikkim Public Service Commission.
2. The Examination will be conducted by the Sikkim Public Service Commission according to syllabus and procedure as indicated in the ***Appendix I*** to these Rules.
3. The date and place of Examination will be fixed by the Sikkim Public Service Commission.
4. Candidate must write the answers in his/her own handwriting. Under no circumstance will he/she be allowed the help of a scribe to write the answers.
5. A candidate must pay fees as may be prescribed by the Commission.
6. The decision of the Commission as to the eligibility of a candidate for admission to the examination shall be final. Their admission at all stages of examination for which they are admitted by the Commission viz: main (Written) Examination and Interview Test will be purely provisional, subject to their satisfying the prescribed eligibility conditions. If on verification at any time before or after the Main (Written) Examination and Interview Test, it is found that they do not fulfill any of the eligibility conditions; their candidature for the examination will be cancelled by the Commission.
7. No candidate will be admitted to the examination unless he/she holds a certificate of admission issued by the Commission. Their admission to all the stages of the Examination will be purely PROVISIONAL subject to satisfying the prescribed eligibility test. Mere issue of admission certificate to the candidate will not imply that his /her candidature has been finally cleared by the Commission.
8. A Candidate who is or has been declared by the Commission to be guilty or any attempt on his/her part to obtain support for his/her candidature by any means shall render him/her liable to be disqualified for admission to the competitive examination.

Contd/-....

(93)

9. (a) Mobile phones, Pagers or any other communication devices are not allowed inside the premises where the examination is being conducted. Infringement of these instructions shall entail appropriate action including ban from taking the examinations.

(b) Candidates are advised in their own interest not to bring any of the banned items including mobile/phones/pagers to the venue of the examination, as arrangement for safe keeping cannot be assured.

(c) Candidates are advised not to bring any valuable/costly items to the examination halls, as safe keeping of the same cannot be assured. Commission will not be responsible for any loss in this regard.

10. The Commission shall have the discretion to fix the qualifying marks in any or all subjects in the written Examination.

11. A candidate, who obtains such minimum qualifying marks in the written examination, as may be fixed by the Commission, shall be called for interview. In the interview, marks shall be assigned by the Commission at their discretion.

12. The form and manner of announcement of results of the examinations shall be decided by the Commission. The Commission will not enter into any correspondence with any candidate regarding results.

13. After the examination and interview, the names of the successful candidates will be arranged by the Commission in the order of merit based on marks awarded to each candidate. Candidates shall be considered for appointment to the available vacancies in the order in which their names appear in the merit list.

14. A candidate who is or has been declared by the Commission guilty of impersonation or of submitting false and fabricated documents which have been tampered with or of making statements which are incorrect or false or of suppressing material information or of attempting to use unfair means in the examination hall or otherwise, or resorting to any or other irregular or improper means for obtaining admission to the examination hall may, in addition to rendering himself liable to criminal prosecution, be debarred:-

(a) By the Commission permanently or for specified period for admission to any examination or appearance at any of the interviews held by the Commission for selection of candidates,

(b) By the State Government from any employment under them.

15. Candidates, already in Government service or in government owned undertaking or similar organization, whether in permanent or temporary capacity or as work charged employee shall be, required to submit their application alongwith No objection Certificate of their employer.

16. Success in the examination confers no right to appointment unless Government is satisfied after such enquiry as may be considered necessary that a candidate having regard to his/her character and antecedents is suitable in all respect for appointment.

Contd/-.....

94

17. A candidate must be in good health and free from any physical defect likely to interfere with the discharge of his duties as an officer of the Service. A candidate who (after such medical examination as may be prescribed by the competent authority) is found not to satisfy these requirements will not be appointed.

18. If a candidate's handwriting is not legible, a deduction may be made in this account from the total marks otherwise accruing to him/her.

19. No travelling and daily allowance will be paid for the journey performed in connection with the examination, interview and medical examination. All other matters not specified or for which no provision has been made in these rules shall be regulated by rules and orders applicable to the Service to which recruitments are being made.

20. The candidate must obtain the qualifying marks decided by Sikkim Public Service Commission in the written examination.

21. The candidate on selection and during the period of probation/apprenticeship/training, pay shall be governed by the Notification No. 489/GEN/DOP, dated 31/10/2011.

22. Scheme/pattern of Examination will be determined by the SPSC.

By order and in the name of the Governor.

UNDER SECRETARY TO THE GOVERNMENT

Copy to:-

1. Secretary, S.P.S.C,
2. File and,
3. Guard file.

Contd/-.....

APPENDIX - I

SCHEME AND SYLLABUS OF EXAMINATION FOR THE PURPOSE OF FILLING UP THE POST OF ASSISTANT DIRECTOR (FISHERIES) IN THE SIKKIM STATE FISHERIES SERVICE

1. The examination will consist of 2 papers:-

PAPERS	SUBJECT	FULL MARKS	TIME ALLOWED
PAPER-I	General English & General Knowledge	100 MCQ	2.00 hours.
PAPER-II	Fisheries	300 MCQ &Conventional	3.00 hours.
VIVA-VOCE - 50 marks			

2. ***PAPER-I: GENERAL ENGLISH***

The question will be designed to test the candidate's understanding and command of the English language. The patterns of questions would be broadly as follows:-

(1) Comprehension of given passage.
(2) Grammar.
(3) Usages and Vocabulary

General Knowledge: Knowledge of current events of local, National and International importance.

PAPER-II: FISHERIES

1. Advanced Techniques in Brackish and Marine Aquaculture
   Latest developments in the brackish and marine aquaculture. New candidates species of shellfish and finfish in mariculture. Disease problems in shrimp farming in coastal waters of India and the new techniques developed for diagnosis and treatment. Major finfish in coastal aquaculture and the methods of rearing in hatchery and in grow-out phase (milkfish groupers, mullets). Technology development for mud crab culture in India. Methods of rearing of echinoderms. Marine ornamental fishes and their culture. Biotechnological advancement in mariculture.

Contd/.....

96

2 Hatchery Designs and Management

Modern concept of hatchery, Development of hatcheries, Shell-fish and finfish hatcheries: Clod water, Warm water and combination type hatcheries prevalent in India and other Countries. Site selection for hatchery; Planning and layout ; Water source, Water quality and water quantity for successful operation of hatchery, water supply systems for outdoor and indoor hatchery; Assessment and monitoring of physico-chemical parameters of water in hatchery. Environment and spawning breeding chamber. Requisites of hatching and rearing success. Hatchery implements, Record keeping and Economic analysis.

3 Advances Techniques in Freshwater Prawn Farming

Recent developments in freshwater prawn farming throughout the world and in India. Details anatomical studies on the reproductive systems. Larval development, induced breeding and hatchery operation techniques. Brood collection, transportation, feeding and management. Prawn farm construction, habitat development and modifications. Grow-out techniques. Feed and feeding strategies. Methods of polyculture of prawn and fishes. Techniques of harvesting and marketing. Disease diagnosis and treatment. General economics of freshwater prawn farm of moderate scale.

4 Air Breathing Fishes and their culture

Introduction, scope and its importance, Morphology and anatomy of culturable air breathing fishes, their behavior and bionomics. Air breathing organs, structure and function. Different culture systems. Reclamation of swamps and their management. Preparation and management of ponds, Source of fish seed, it procurement and stocking. Feed and feeding strategies. Artificial propagation, does determination of inducting agents. Larval rearing, food and feeding strategies of different age groups. Post harvest technology, cost benefits ratio of air breathing fish farming.

5. Analytical Aquaculture Techniques

Qualitative and quantitative sampling techniques ; Determination of dissolved oxygen, carbon-di-oxide, alkalinities, chlorine, ammonia, nitrogen , nitrate-nitrogen, phosphorus, silica, sulphate . Determination of organic carbon, demand (biochemical), methane, organic & volatile acids, pesticides , Procedures for the study of nutrient cycling in water bodies. Microbial examination of water, sediments and fish. Structure and function of corers, dredges, nets and various samplers. Chromatographer techniques for aquatic organisms. Bioassay method for aquatic organisms. Morphoedaphic indices for productivity. Methods of biomass determination of plankton. Various methods of estimation of production. Calorific estimation of population and estimation of rate of respiration.

Contd/.....

6. Trout and Mahseer Fish Farming Techniques :

Bionomics of different species of trout and mahseer, breeding biology of trouts and mahseer; propagation and stock improvement; farming systems; survey and selection of site for trout and mahseer farming units; planning and layout of culture units; water quality criteria; water supply systems; broodstock management , breading of trouts, incubation and alevin rearing; ova- house management of rearing and production tanks, size- grading; seed production of golden and khudree mahseer; hatchery operation ; conventional and non convention artificial diets; feed formulation and preparation , parasites and diseases and their control measures, packing and shipment , marketing and trade, ranching economic analysis of trout and mahseer farming.

7. Controlled Culture techniques of Fish Food Organisms:

Constituents of food organisms of fish in different aquatic environments, Production cycles of fish organisms in water bodies and role of various physico-chemical factors. Nutritional qualities of cultivated food organisms. Recent techniques of micro algal culture yield per unit and economics of culture of periphyton. Culture of zooplankton, cost of production. Cultivation technology of tubificids, chironomids , polychaects and amphipods in laboratory and field. Resources and exploitation of Artemia, its role in aquaculture, production in controlled systems. Processing and storage of biomacs and cysts. Maintenance of culture systems .Genetic improvement techniques in the cultivated food organisms in fish rearing.

8. Ecological Managements of Aquatic Ecosystems

Concept of the ecosystem, abiotic and biotic components, cycling of organic nutrients, recycle pathways, community analysis , species diversity in communities, Concepts of hatitat and ecological niche, biological clocks , evolution of the ecosystems. The energy environment of fishery ecosystem. Tropic levels, food chain and food webs. Metabolism and size of individuals, tropic structure in relation to management of aquatic systems. Gross and net primary production in relation to fish yield. Secondary production of zooplankters, benthos and fish. Energy flow, factors affecting transformation energy at various tropic levels, conversions efficiencies and their significance for obtaining maximum sustainable fish yields. Detrital resources and their role in fish production.

Contd/.....

9. Recent Techniques in Fish Seed Production

Sources of brood fish, handling and transportation, criteria for brood fish selection; stock improvement, nutritional requirement of brood stock. Maturity stages-preparatory pre-spawning, spawning, post-spawning, Environmental factors, temperature , rain, photoperiod, water flow, salinity. Identification of mature brooders-spawning behaviour. Extract ampouling. Synthetic hormones, dose requirement, gamete collection and preservation, stripping. Environmental manipulation of spawning. Fertilization and larval development. Nursery management, pr-stocking and post stocking management. Larval and post larval rearing. Conditioning and transportation of fry and fingerings.

10. Advances in Fish Nutrition

Current status of fish nutrition. Nutrient requirements- protein and aminoacids, lipid, fatty acids and energy, vitamins and minerals, bioenergetics of feeding- gross energy, available energy, metabolisable energy, energy balance in fish. Fish feed and their quality. Types of fish feed, dry or moist diets, selection of feed ingredients, diet formulation, evaluation and feed manufacturing. Fish feeds for brood stock, grow out and larvae. Non-conventional feed resources and prospects of their use. Non-Nutrient diet components – Troxins and antimetabolites diet additives i.e. harmones, pellat winders, antibiotics. Attractants antioxidants and accidental contaminants. Feeding strategy, dietary energy level and total feed requirements, mechanical and demand feeders.

11. Integrated Fish Farming and Waste Recycling

Introduction, concepts of integrated fish farming and recycling systems. Planning and layout of integrated fish farms.Types of integrated farms. Dairy-cum-fish culture, Pig-cum-fish culture, Duck-cum-fish culture, Poultry-cum-fish culture, Paddy-cum-fish culture, Horticulture-cum-fish culture, Sewage fed fisheries, Biogas effluents and their use in fish culture. Problems and prospects of integrated fish farming. Management of livestock such as duck, poultry, pigs, cow, buffaloes. Marketing of byproducts. Management of water quality, physico-chemical properties of sewage and biogas effluents. Health care of livestocks.

12. Microbial Diseases of Fin-Fish and Shell fish

Pathogenic virus bacteria, fungi and protozoa in fish (shell & fin), Etiology and epizootiology of viral pathogens. Diagnosis and control measures of viral diseases. Pathogenic bacterial microflora of water and fish, epizootiology of bacteria diseases. Diagnosis and therapeutics for bacterial disease, preventive measures. Pathogenics of other microbes (fungi, protozoa) of finfish and shell fish, symptoms and diagnosis. Therapeutics and prophylactic measures. Quarantine, vaccination and immunization.

Contd/-