

# TAMIL NADU PUBLIC SERVICE COMMISSION

# DATED:23.12.2021

Applications are invited from eligible candidates only through online mode upto **21.01.2022** for direct recruitment to the posts of **Assistant Director of Fisheries** in the Tamil Nadu Fisheries Service.

# WARNING

- All recruitments by the Tamil Nadu Public Service Commission are purely merit based.
- The Tamil Nadu Public Service Commission hereby cautions the applicants against touts and agents who may cheat, by making false promises of securing jobs through unfair means.
- The Tamil Nadu Public Service Commission shall not be responsible or liable for any loss that may be caused to any applicant on account of indulging in any sort of dealings with such unscrupulous elements.
- Applicants are solely responsible for their claims in the online application. They cannot blame service providers like internet cafes/browsing centres/Common Service centres for the mistakes made while applying online for recruitment. Applicants are advised to check the filled in online application before finally submitting the same.

# எச்சரிக்கை

- தேர்வாணையத்தின் தெரிவுகள் அனைத்தும் விண்ணப்பதாரரின் தர வரிசைப்படியே மேற்கொள்ளப்படுகின்றன.
- பொய்யான வாக்குறுதிகளைச் சொல்லி, தவறான வழியில் வேலை வாங்கித் தருவதாகக் கூறும் இடைத்தரகர்களிடம் விண்ணப்பதாரர் மிகவும் கவனமாக இருக்குமாறு எச்சரிக்கப்படுகின்றனர்.
- இதுபோன்ற தவறான மற்றும் நோமையற்றவர்களால் விண்ணப்பதாரருக்கு ஏற்படும் எவ்வித இழப்புக்கும் தோவாணையம் எந்தவிதத்திலும் பொறுப்பாகாது.
- இணையவழி விண்ணப்பத்தில் குறிப்பிடப்படும் அனைத்துத் தகவல்களுக்கும் விண்ணப்பதாரரே முழுப் பொறுப்பாவார். விண்ணப்பதாரர், தேர்விற்கு இணையவழியில் விண்ணப்பிக்கும்பொழுது, ஏதேனும் தவறு ஏற்படின், தாங்கள் விண்ணப்பித்த இணையச்சேவை மையங்களையோ/பொதுச் சேவை மையங்களையோ குற்றம் சாட்டக் கூடாது. விண்ணப்பதாரர் பூர்த்தி செய்யப்பட்ட இணையவழி விண்ணப்பத்தினை இறுதியாக சமர்ப்பிக்கும் முன்னர், நன்கு சரிபார்த்தப் பின்னரே சமர்ப்பிக்குமாறு அறிவுறுத்தப்படுகிறார்.

It is mandatory for applicants to register their basic particulars through one - time online registration system on payment of Rs. 150/- (Rupees One hundred and fifty only) towards registration fee and then <u>they should apply online for this recruitment</u>. [The one-time registration will be valid for five years from the date of registration. Thereafter, the registration should be renewed by paying the prescribed fee.] One Time Registration will not be considered as an application for any post.

**Details of vacancies:** 

Name of the post	Name of the service	No. of vacancies	Scale of pay
Assistant Director of Fisheries (Post Code No. 1755)	Tamil Nadu Fisheries Service (Service Code No. 030)	2	Rs.56100 - 177500 (Level 22) (Revised Scale)

Unless and otherwise specified, the number of vacancies notified is approximate and is liable to modification as indicated in para. 11-A of 'Instructions to Applicants'.

### **2. DISTRIBUTION OF VACANCIES**

### SC(W) -1, MBC/DC (G)-1\*

### Note:-

\*(i) The distribution would be subject to the orders of the Supreme Court on the Special Leave to Appeal [SLP] filed by the Government with regard to the Act 8 of 2021.

(ii) Information regarding MBC (v) MBC-DNC, and other MBC are required for distribution depending upon the outcome of Special Leave Petition before the Hon'ble Supreme Court.

The selection against SC(W) vacancy will be made from eligible candidates among the SC(W) [Scheduled Castes (Woman)], SC(A)(W) [Scheduled Castes (Arunthathiyars) (Woman)] categories.

### **3. IMPORTANT DATES AND TIME:**

Date of notification	23.12.2021
Last date for submission of online application	21.01.2022
Dates of written examina	tion
Paper-I : Subject paper (PG Degree standard)	12.03.2022 09.30A.M. to 12.30 P.M.
Paper-II : <u>Part-A</u> Tamil Eligibility Test (SSLC Standard) <u>Part-B</u> General Studies (Degree Standard)	12.03.2022 02.00P.M. to 05.00 P.M.

### <u>Note</u>

**Refer Annexure-V** of this notification regarding tentative timeline for the recruitment process.

### **4. QUALIFICATIONS:**

### (A) AGE LIMIT (as on 01.07.2021):

SI. No.	Category of Applicants	Maximum Age
1.	SCs, SC(A)s, STs, MBC/DCs, BC(OBCM)s, BCMs and Destitute Widows of all categories.	No Maximum Age limit
2.	'Others' [i.e. candidates not belonging to SCs, SC(A)s, STs, MBC/DCs, BC(OBCM)s and BCMs]	33years* (Should not have completed)

Note: \* In G.O (Ms).No.91, Human Resources Management (S) Department, dated 13.09.2021, Maximum Age Limit has been increased from 33 to 35 years.

**Explanation:** No maximum age limit shall mean that the applicants should not have completed 60 years of age either on the date of notification or at the time of selection /appointment to the post.

### <u>Note</u>

"Others" [i.e., Applicants not belonging to SCs, SC(A)s, STs, MBC/DCs, BC(OBCM)s, BCMs] who have put in five years and more of service in the State/Central Government are not eligible even if they are within the age limit. (For further details refer to para 3(F) of "Instructions to Applicants", Section 3(r) of Tamil Nadu Government Servants (Conditions of Service) Act, 2016).

# AGE CONCESSION:

# (i) For Persons with Benchmark Disability :

Persons with Benchmark Disability are eligible for age concession upto 10 years over and above the maximum age limit prescribed.

(Section 64 of the Tamil Nadu Government Servants (Conditions of Service) Act, 2016)

### (ii) For Ex-servicemen:

a) The maximum age limit for ex-servicemen is 50 years.

(Section 63 of the Tamil Nadu Government Servants (Conditions of Service) Act, 2016).

b) The above mentioned age concession will not apply to the ex-servicemen applicants who have already been recruited to any class or service or category.
 (Section 3(j) of the Tamil Nadu Government Servants (Conditions of Service) Act, 2016)

# (B) EDUCATIONAL QUALIFICATION (as on 23.12.2021)

Applicants should possess the following or its equivalent qualification awarded by any University or Institution recognized by the University Grants Commission:

post1. (i) M.F.Sc., Degree(or)(ii) A Doctorate in Zoology or Marine Biology (or)(iii) M.Sc., (Bio-Technology) with a basic B.F.Sc., Degree (or)2. A first class degree in M.A/M.Sc., in Zoology or Marine Biology with a minimum of three years of Research experience as evidenced by published scientific papers.Provided that preference shall be given to the candidates possessing M.F.Sc., Degree or M.Sc., Bio Technology with basic B.F.Sc., degree and only if sufficient number of candidates possessing M.F.Sc.,
(or)(ii) A Doctorate in Zoology or Marine Biology (or)(iii) M.Sc., (Bio-Technology) with a basic B.F.Sc., Degree (or)2. A first class degree in M.A/M.Sc., in Zoology or Marine Biology with a minimum of three years of Research experience as evidenced by published scientific papers.Provided that preference shall be given to the candidates possessing M.F.Sc., Degree or M.Sc., Bio Technology with basic B.F.Sc., degree and only if sufficient number of candidates possessing M.F.Sc.,
degree or M.Sc (Bio-Technology) with a basic B.F.Sc., Degree are not available the candidates possessing other qualifications shall be considered. Note: Experience Certificate in Annexure-I.

### Note:

- (i) The qualification prescribed for the posts should have been obtained by passing the required qualification in the following order of studies: 10<sup>th</sup> + HSC or its equivalent + Bachelor's degree + P.G. degree as required under Section 25 of the Tamil Nadu Government Servants (Conditions of Service) Act, 2016. Results of the examination should have been declared on or before the date of notification. (Section 20(4)(iv) of the Tamil Nadu Government Servants (Conditions of Service) Act, 2016).
- (ii) The qualifications considered equivalent are indicated in Annexure-III to this notification.
- (iii) Applicants claiming equivalence of qualification to the prescribed qualification should upload and submit evidence for equivalence of qualification, in the form of government order issued on or before the date of this notification, and produce it when called for, failing which, their application will be summarily rejected after due process. The government orders regarding equivalence of qualification issued after the date of this notification will not be accepted. (For further details regarding equivalence of qualification refer note under para.9 of the <u>"Instructions to Applicants</u>").

# (C) CERTIFICATE OF PHYSICAL FITNESS:

Applicants selected for appointment to the said post will be required to produce a certificate of physical fitness in the form prescribed below. The model format is enclosed with <u>Annexure IV</u> of the notification. The said Certificate should be submitted by the selected candidate to the Appointing Authority at the time of joining to the said post.

Standard of vision	Certificate of physical fitness
Standard III	Form prescribed for executive post

**Colour blindness will be a disqualification**. Applicants with defective vision should produce eye fitness certificate from a qualified eye specialist working in Government Hospital.

# (D) KNOWLEDGE IN TAMIL

Applicants should possess adequate knowledge in Tamil. (For further details refer para 14(I) of 'Instructions to Applicants'.)

# **5. FEES:**

a)	Registration Fee			
	For One Time Registration (G.O.(Ms).No.32, Personnel and	Rs.150/-		
Administrative Reforms (M) Department, dated 01.03.2017).				
Note				
Applicants who have already registered in One Time online Registration system and are within the validity period of 5 years are exempted.				
b)	Note	Rs.200/-		
	The Examination fee <b>should be paid</b> at the time of submitting the			
	online application for this recruitment if they are not eligible for			
	the concession noted below.			

### Note:

- (i) Linking Aadhaar number with One Time Registration (OTR) is mandatory for applicants.[ For further details refer para 2B of 'Instructions to Applicants'.]
- (ii) One Time Registration is valid for five years from the date of registration. After completion of five years, the applicant must renew the One Time Registration by paying the fee prescribed. The One Time Registration is different from the application for the examination. An applicant should make an online application separately for each and every examination for which he intends to appear. [Para 2C of 'Instructions to Applicants'.]
- (iii) Applicants who had already registered under One-Time Registration system by paying Rs.50/- before 01.03.2017 and having validity and those who have registered for One-Time Registration on or after 01.03.2017 by paying Rs.150/towards One-Time Registration are exempted from paying the registration fee for this recruitment.

# **EXAMINATION FEE CONCESSIONS:**

	Category	Concession
(i)	Scheduled Castes/ Scheduled Caste (Arunthathiyars)	Full Exemption
(ii)	Scheduled Tribes	Full Exemption
(iii)	Most Backward Classes / Denotified Communities	Three Free Chances
(iv)	Backward Classes (Other than Muslim) / Backward Classes (Muslim)	Three Free Chances
(v)	Ex-Servicemen	Two Free Chances
(vi)	Persons with Benchmark Disability	Full Exemption
(vii)	Destitute Widow	Full Exemption

### Note:

(i) The total number of free chances availed, will be calculated on the basis of claims made in previous applications.

(ii) The number of free chances availed by the applicant may be verified by the Commission at any stage of the selection process.

(iii) In case an applicant who makes a false claim for exemption from payment of application fee by suppressing information regarding his previous application(s) his candidature shall be rejected after due process and he shall be debarred for a period of one year from appearing for examinations and selections conducted by the Commission.

(iv) Applicants are directed to carefully choose the options 'Yes' or 'No' regarding availing the fee concession. The choice made, cannot be modified or edited after successful submission of online application.

(v) Applicants are advised in their own interest, to keep an account of the number of times fee concession has been availed, irrespective of the information displayed in the <Application History> of the applicant dashboard.

(vi) An application (irrespective of the post applied for) claiming fee concession will operate to exclude one chance from the number of free chances allowed.

(vii) Applicants who have availed the maximum number of free chances permitted / applicants who do not wish to avail of the fee concession / applicants who are not eligible for fee concession, shall choose the option 'No' against the query regarding fee concession. Such applicants shall thereafter pay the requisite fee through the prescribed mode of payment.

(viii) Failure to pay the prescribed fee along with the online application, will result in the rejection of application after due process. (for further details regarding examination fee concessions refer to Para 6 of 'Instructions to Applicants')

### **6. MODE OF PAYMENT OF EXAMINATION FEE:**

- Written Examination fee of Rs.200/- (Rupees Two hundred only), is payable by online through Net Banking / Credit card / Debit card on or before the date of submission of online application by choosing the option in the online application.
- Applicants have also to pay the service charges as applicable.
- Applicants can avail exemption from paying examination fee as per eligibility criteria.
- Offline mode of payment in the form of demand draft / postal order etc. will not be accepted and the applications forwarded with such modes of payment will be summarily rejected.
- Those who have registered in the One-Time Registration system and paid the registration fee of Rs.150/- and received the registration ID need not pay the Registration fee i.e., Rs.150/- and it is enough to pay the examination fee alone.
- Applicants who have made One-Time Registration must pay the prescribed examination fee for this recruitment unless fee exemption is claimed (One-Time Registration is only to avail exemption for Registration fee for a period of 5 years from the date of registration and it will not be considered as prescribed examination fee for this recruitment).

(For further details regarding the Examination fee, refer para. 2(V) of "Instructions to Applicants").

### 7. CONCESSIONS:

- (i) Concessions in the matter of age and/or examination fees allowed to SCs, SC(A)s, STs, MBC/DCs, BC(OBCM)s, BCMs, Destitute Widows, Persons with Benchmark Disability and Ex-servicemen are given in <u>paras. 3D, 5 and 6 of</u> <u>the 'Instructions to Applicants'</u>.
- (ii) Persons claiming concessions referred to above and other claims made in the application have to produce evidence for such claims when called for, otherwise their application will be rejected after due process.

### Note:

In all cases, an **ex-serviceman once recruited** to a post in any class or service or category, **cannot claim the concession** of being called an ex-serviceman for his further recruitment. (Section 3(j) of the Tamil Nadu Government Servants (Conditions of Service) Act, 2016).

### **8. SCHEME OF EXAMINATION:** OBJECTIVE TYPE (OMR METHOD) AND ORAL TEST:

			Minimum q marks for se	
Subject	Duration	Maximum marks	SCs, SC(A)s, MBC/DCs, BC(OBCM)s & BCMs	Others
Paper -I(Objective Type) (Subject Paper) (200 questions) (Any one of the following Subject Paper)				
<ol> <li>Fisheries Science(P.G.Degree Standard) (Code No:329)</li> <li>Zoology(P.G.Degree Standard) (Code No:271)</li> <li>Marine Biology(P.G.Degree Standard) (Code No:294)</li> </ol>	3 Hours	300		
<u>Paper-II (Objective Type)</u> <u>Part-A</u> Tamil Eligibility Test (SSLC Std) (100 Questions / 150 Marks)		<b>Note:</b> <i>Minimum</i> <i>qualifying</i> <i>marks</i> – 60 <i>marks</i> (40% of 150) <i>Marks</i> <i>secured in</i> <i>Part-A of</i> <i>Paper-II will</i> <i>not be taken</i> <i>into account</i> <i>for ranking.</i>	153	204
Part-B (General Studies) (100 questions) (150 marks)(Code No:003)	3 Hours	150*		
<b>General studies</b> (Degree standard) – 75 questions and <b>Aptitude and mental ability test</b> (SSLC standard) - 25 questions				
iii. Interview and Records		60	)	
Total		510		

### \*<u>Note:</u>

- a) Answer sheets of Paper-I and Part B of Paper II of the candidates will not be evaluated, if the candidate does not secure minimum qualifying marks in Part-A of Paper-II.
- b) Only marks secured in Paper-I and Part-B of Paper-II will be considered for ranking.

- c) The question paper in the subjects in paper I will be set in English only. The questions in Part-B of Paper-II will be set both in Tamil and English. Candidates should choose and specify in the application, only the prescribed subject in which they have obtained the educational qualification for appearing to the examination. Candidate possessing M.Sc (Bio Technology) with a basic B.F.Sc., Degree shall choose Fisheries Science as their subject paper in Paper -I
- d) Refer to para.17 of "<u>Instructions to Applicants"</u> with regard to Instructions to be followed while appearing for competitive Examinations conducted by the Commission.
- e) The syllabus for written examination is available in <u>Annexure-II</u> to this Notification.

### **9. SELECTION PROCEDURE:**

Selection will be made in two successive stages i.e., (i) Written Examination and (ii) Oral Test in the shape of an interview. The final selection will be made on the basis of the total marks obtained by the applicants at the written examination and oral test taken together subject to the rule of reservation of appointments. Applicants' appearance in the written examination and oral test is compulsory. The applicant who has not appeared for any of the subjects in the written examination or Oral Test will not be considered for selection, even if he/she secures the minimum qualifying marks for selection. (For further details refer to para 18(B) of the 'Instructions to Applicants')

### **10. CENTRES FOR EXAMINATION:**

The Examination will be held at Chennai (0101) Only

### Note:

(i) Applicants should appear for the written examinations / certificate verification / oral test at their own expenses.

### **11. (A) EMPLOYMENT DETAILS**

Candidates who are in the service of the Indian Union or a State in India or in the employment of Local Bodies or Universities or Quasi Government Organizations or Public Sector Units constituted under the authority of the Government of India or of a State in India, whether in regular service or in temporary service must inform the Commission of such fact, at the time of applying. Suppression of the fact of employment by candidates shall result in rejection of candidature after due process. [For further details refer para. 14 (P) of "Instructions to Applicants']

# (B) DECLARATION REGARDING CRIMINAL CASES (OR) DISCIPLINARY CASES:

(i) Candidates who have declared pending criminal or disciplinary cases in their online application, must upload / produce the copy of First Information Report (FIR) or memorandum of charges / show cause notice, as the case may be. Failure to upload / produce such papers when called for, shall result in rejection of candidature after due process.

- (ii) Candidates who have declared conviction in criminal cases or punishment in disciplinary cases, in their online application, must upload / produce the relevant court orders and/or release orders or memorandum of proceedings, as the case may be, when called for. Failure to upload / produce such papers, shall result in rejection of candidature after due process.
- (iii) In case of any criminal case is filed / disciplinary action is taken against or conviction / punishment is imposed on a candidate after submission of the on-line application at any stage of the recruitment process before the completion of entire selection process such candidates should report this fact to the Commission in the next immediate stage when Commission calls for uploading/ producing documents. Failure to comply with these instructions shall result in rejection of candidature after due process and debarment for a period of one year. [Para. 14 (S) of "Instructions to Applicants']

Any violation of instruction therein will result in rejection of application and forfeiture of his/her candidature after due process.

# **12. GENERAL INFORMATION:**

(A) The rule of reservation of appointments is applicable to this recruitment.

# (B) Person Studied in Tamil Medium

- (i) As per Section 2(d) of the Tamil Nadu Appointment on preferential basis in the services under the State of Persons Studied in Tamil Medium Act, 2010, as amended by Act 35 of 2020, Person studied in Tamil medium means a person who has studied through Tamil medium of instruction upto the educational qualification prescribed for direct recruitment in the rules or regulations or orders applicable to any appointment in the services under the State.
- (ii) Candidates claiming to be Persons studied in Tamil Medium (PSTM) must upload / produce evidence for the same in the form of SSLC, HSC, Transfer Certificate, Provisional Certificate, Convocation Certificate, Degree Certificate, PG Degree Certificate, Mark Sheets, Certificate from the Board or University or from the Institution, as the case may be, with a recording that he/she had studied **the entire duration of the respective course(s) through Tamil Medium of instruction.**
- (iii) Candidates must upload / produce documents as evidence of having studied in the Tamil medium, all educational qualification upto the educational qualification prescribed.

Example:

If the prescribed educational qualification is Degree, then the candidate should have studied the SSLC, Higher Secondary Course and Degree through Tamil Medium of instruction.

If the prescribed educational qualification is Post-Graduate Degree, then the candidate should have studied the SSLC, Higher Secondary Course, Degree and the Post-graduate degree through

# Tamil medium of instruction (Refer para 14(R) (iii) example(e) of Instructions to Applicants.

- (iv) If no such document as evidence for 'PSTM' is available, a certificate from the Registrar / Principal / Head Master / Controller of Examinations / Director of the Educational Institution, as the case may be, in the prescribed format must be uploaded / produced, for each and every educational qualification up to the educational qualification prescribed.
- (v) Failure to upload / produce such documents as evidence for 'Persons Studied in Tamil Medium' for all educational qualification up to the educational qualification prescribed, shall result in the rejection of candidature after due process.
- (vi) Documents uploaded / produced as proof of having studied in Tamil medium, for the partial duration of any course / private appearance at any examination, shall not be accepted and shall result in the rejection of candidature after due process.

(For further details refer to para. 14 (R) of the "Instructions to Applicants")

- (C)The selection for appointment to the said posts is purely provisional subject to the final orders in the writ petitions, if any, pending on the files of the Hon'ble High Court of Madras and its Madurai Bench.
- (D) As per Sections 26 and 27(c) of the Tamil Nadu Government Servants (Conditions of Service) Act, 2016, reservation of appointment to "<u>Destitute Widows"</u> and <u>"Exservicemen</u>" will not apply to this recruitment.

### (E) PERSONS WITH BENCHMARK DISABILITY :

As per G.O. (Ms.) No. 20, Welfare of Differently Abled Persons (DAP.3.2) Department, dated 20.06.2018, the said posts have been identified as suitable for differently abled persons with the following disabilities – **LV**, **LC**, **DF**. [LV-Low vision, LC- Leprosy cured, DF- Dwarfism].

(F) Persons with Benchmark Disability should submit / upload a copy of Disability Certificate in the format prescribed in the Rights of Persons with Disabilities Rules, 2017 [Department of Empowerment of Persons with Disabilities (Divyangjan), Ministry of Social Justice and Empowerment, Government of India] and issued by the competent authority defined in GO Ms. No. 28, Welfare of Differently Abled Persons (DAP 3.1), dated 27.07.2018.

[For further details refer Para. 14 (M) of "Instructions to Applicants']

- (G) If no qualified and suitable women applicants are available for selection against the vacancies reserved for them, those vacancies will be filled by male applicants belonging to the respective communal categories. (Section 26(5) of the Tamil Nadu Government Servants (Conditions of Service) Act, 2016).
- (H) Wherever vacancies are reserved for Arunthathiyars on preferential basis, even after filling the vacancies reserved for SC (Arunthathiyars) on preferential basis, if more number of qualified Arunthathiyars are available, they shall be entitled to compete with the Scheduled Castes other than Arunthathiyars in the inter-se-merit among them and if any posts reserved for Arunthathiyars remain

unfilled for want of adequate number of qualified applicants, it shall be filled by Scheduled Castes other than Arunthathiyars. (Section 27 of the Tamil Nadu Government Servants (Conditions of Service) Act, 2016).

- (I) Evidence for all the claims made in the online application should be uploaded / submitted in time when documents are called for. Any subsequent claim made after submission of online application will not be entertained. Failure to upload / submit the documents within the stipulated time limit will entail rejection of application after due process.
- (J) Suppression of following material information in the online application regarding (i) free chances availed (ii) Employment in the Service of the Indian Union or a State in India or in the employment of Local Bodies or University or Quasi Government Organization or Public Sector units constituted under the authority of the Government of India or of a State in India in regular service or temporary service (iii) Wilful suppression of criminal cases / disciplinary action pending / punishments if any, against the applicant (iv) violation of undertaking given by the applicant in the online application etc,. may invite suitable penal action including debarment for a specific period as decided by the Commission for various recruitments/ selections conducted by the Commission, besides rejection of application after due process.
- (K)Correct and true information regarding arrest, convictions, criminal or any disciplinary proceedings initiated / pending or finalised, debarment / disqualification by any recruiting agency, participation in agitation or any political organisation, candidature in election for Parliament / State Legislature / Local Bodies etc, if any, should also be furnished to the Commission at the time of application. The details thereof, i.e. originals of the judgement / order / G.O. dropping further action in the departmental proceedings or any document that may prove the suitability of such applicates for appointment in such cases must be produced at the stage / time of application and till the date of his / her selection and appointment shall be reported to the Commission forthwith. Failure to report on the part of the applicant will be considered as suppression of material information and will attract suitable penal action. [For further details refer para.12 of the Instructions to applicants]
- (L) Incomplete applications and applications containing wrong claims or incorrect particulars relating to category of reservation / eligibility / age /gender / communal category / educational qualification / medium of instruction / physical qualification / other basic qualifications and other basic eligibility criteria will be summarily rejected after due process.
- (M) One Time Registration is not an application for any post / recruitment. Though the details/particulars have already been furnished by the applicants under One Time Registration system, the claims made in the online application for this recruitment alone will be taken into consideration. The Commission will not be responsible for any consequences arising out of furnishing of incorrect and incomplete details in the application or omission to provide the required details in the application for this recruitment.

### (N) Determination of Community for Transgender:

(i) The Transgender candidates, who do not possess any community certificate may choose to be considered under Most Backward Classes as per G.O.(Ms) No.28, Backward Classes, Most Backward Class and Minorities Welfare Department, dated 06.04.2015 or under 'others'.

(ii) The Transgender candidates who belong to Scheduled Caste/ Scheduled Caste (Arunthathiyar)/ Scheduled Tribe communities and possess community certificate as such, shall be considered as per their respective community.

(iii) The Transgender candidates who belong to the communities other than Scheduled Caste/ Scheduled Caste (Arunthathiyar) / Scheduled Tribe and possess community certificate as such are permitted to choose to be considered as belonging to their own community or as Most Backward Class whichever is advantageous to them, at the time of One Time Registration itself. Once the individual opts to be considered as a particular community, it shall be crystallized and this option shall not be changed in future. [Refer Para. 14 (F) (vi – xi) of "Instructions to Applicants']

### (0) Reservation in Employment for Transgender:-

(i) The Transgender candidates who identify themselves as 'Female' shall be considered against both 30% reservation for women as well as 70% reservation for the General category (both Men & Women).

(ii) The Transgender candidates, who identify themselves as 'Male' or 'Transgender', shall be considered against the 70 % reservation for General category (both Men & Women).

The above concessions shall be granted subject to production of certificate identifying them as Transgender or Transgender (Male) or Transgender (Female), as the case may be, issued by the Tamil Nadu Transgender Welfare Board (TNTGWB)."

### **13. OTHER IMPORTANT INSTRUCTIONS:**

a) Applicants should ensure their eligibility for the examination. Before applying for / appearing for the examination, the applicants should ensure their eligibility for such examination and that they fulfil all the conditions in regard to age, educational qualifications, number of chances for fee concession, etc., as prescribed by the Commission's notification. Their admission to all stages of the examination will be purely provisional, subject to their satisfying the eligibility conditions. Mere admission to the written examination / certificate verification / oral test / counselling or inclusion of name in the selection list will not confer on the candidates any right to appointment. The candidature is therefore, provisional at all stages and the Commission reserves the right to reject candidature at any stage after due process, even after selection has been made, if a wrong claim or violation of rules or instructions is confirmed.

[Refer Para. 11 (B) (C) and (D) of "Instructions to Applicants']

- b) The memorandum of admission (hall ticket) for eligible applicants will be made available in the Commission's website www.tnpscexams.in / www.tnpsc.gov.in for downloading by applicants. The memorandum of admission will not be sent by post. The applicants must comply with each and every instruction given in the memorandum of admission.[Refer in Note (g) under Para 2(V) of "Instructions to applicants"]
- c) Applicants requiring clarification, can contact the office of the Tamil Nadu Public Service Commission in person or over the Toll-Free No.1800 419 0958 on all working days between 10.00 am and 5.45 pm. Queries relating to One Time Registration/ online application may be sent to <u>helpdesk@tnpscexams.in</u>. Other queries may be sent to <u>contacttnpsc@gmail.com.</u> [Refer in Note (h),(i),(j) under Para 2(V) of "Instructions to applicants"]
- d) COMMUNICATION TO APPLICANTS: Individual communication regarding the date and time of certificate verification, oral test and counselling (as applicable) will not be sent to the applicants by post. The details will be made available on the Commission's website. Applicants will be informed of the above fact only through SMS and e-mail and they should watch the Commission's website in this regard. Commission is not responsible for non-delivery of SMS/e-mail due to any reasons.
- e) During the process of recruitment from Notification till completion of selection process, no information under Right to Information Act, CM cell petitions, GRC would be furnished.

### f) MOBILE PHONES AND OTHER ARTICLES BANNED :

- i) Except the permitted writing material (Black ball point pen), applicants are not allowed to bring cellular phones, electronic or any other type of calculators, watches and rings with inbuilt memory notes, recording devices either as a separate piece or part of something used by the applicant such as watch or ring etc., or any other electronic devices and non - electronic devices such as P&G design data book, mathematical and drawing instruments, log tables, stencils of maps, slide rules books, notes, loose sheets, rough sheets, hand bags etc., into the examination hall / room.
- ii) If they are found to be in possession of any such things or instruments, they will not be allowed to write the examination further, besides invalidation of answer paper and / or debarment. If it is considered necessary, they will be subjected to thorough physical search including frisking on the spot.
- iii) Applicants are advised, in their own interest, not to bring any of the banned items including mobile phones to the venue of the examination, as arrangements for safekeeping of the same cannot be assured. (For further details refer Para 17-E to <u>"Instructions to Applicants</u>").
- g) Unless specific instruction is given, applicants are not required to submit along with their application any certificates (in support of their claims regarding age, educational qualifications, physical qualification, community, physical disability etc.,) which should be submitted when called for by the Commission. Applicants applying for the examination should ensure that they fulfil all the eligibility

conditions for admission to the examination. Their admission at all the stages of examination for which they are admitted by the Commission will be purely provisional, subject to their satisfying the prescribed eligibility conditions. **If**, **on verification at any time before or after the written examination** /certificate verification / oral test, it is found that they do not fulfil any of the eligibility conditions, their candidature for the recruitment will be rejected summarily by the Commission.

- h) If any of their claims is found to be incorrect, it will lead to rejection of their candidature after due process and suitable penal action including debarment.
- i) UNFAIR MEANS STRICTLY PROHIBITED: No applicant shall copy from the papers of any other applicant or permit his / her papers to be copied or give or attempt to give or obtain or attempt to obtain irregular assistance of any description.
- j) CONDUCT IN THE EXAMINATION HALL: No applicant should misbehave in any manner or create a disorderly scene in the examination hall or harass the staff employed by the Commission for the conduct of the examination. Any such misconduct will be viewed seriously and penalised.
- k) For violation of "Instructions to Applicants" in any manner, suitable penalty will be imposed as per <u>Para 17-E to "Instructions to Applicants</u>" or as deemed fit by the Commission.
- (I) Tentative answer keys will be hosted in the Commission's website within 3 days from the date of conduct of objective type examination. Candidates can challenge the tentative answer keys of the objective type examination through the 'Answer Key Challenge' window available in the Commission's website [Results → Answer Keys].

Representations, if any, challenging the tentative answer keys shall be submitted only through online mode **within seven days from the date of publication of tentative answer keys**. Representations received by post or e-mail will receive no attention.

Detailed instructions, procedures to challenge the tentative answer keys have been made available in the Commission's website. Representations made online / offline after the closure of the window will also receive no attention.

The challenges submitted on time, through the online mode, shall be referred to a committee comprising of experts in each subject. The decision on the final answer key shall be made, based on the recommendations of the expert committee and paper evaluation shall commence thereafter.

The Commission shall not publish the final answer key until the completion of the entire selection process.

Requests from candidates for furnishing of their marks or answer paper copy before the completion of the entire selection process, will not be entertained by the Commission.

After conclusion of the entire selection process, complete particulars of all candidates who had applied for recruitment to the post shall be made available on the Commission's website.[Refer Para 17(D) (v) to (xiii) of "Instructions to Applicants"]

### **14. HOW TO APPLY:**

- 1) Applicants should apply only through online mode in the Commission's websites <u>www.tnpsc.gov.in</u> or <u>www.tnpscexams.in</u>
- 2) "One Time Registration" using Aadhaar is mandatory before applying for any post. Applicant should register only once in the One Time Registration by paying Rs.150/- as registration fee. Successfully registered One Time Registration is valid for five years from the date of registration. All the applications should be submitted using the One Time Registration ID and password registered by the applicant.
- 3) To apply under One Time Registration system, applicants should have a scanned image of their photograph, certificates specified, if any, and signature in CD/DVD/Pen Drive to upload the same, as per the specifications given in the guidelines for scanning and uploading of photograph and signature.
- 4) No applicant is permitted to create more than one registration ID under One Time Registration system.
- 5) Applicants should enter the Unique ID and password to view the already available information and update them. They shall not share the ID with any other person or agency.
- 6) One Time Registration is not an application for any post. It is just a collection of information from the applicants and provides a separate dashboard to each applicant to facilitate maintenance of their own profile. Applicants who wish to apply for this recruitment shall click <u>"Apply"</u> against the recruitment notified in the Commission's website using the same USER ID and PASSWORD given for ONE TIME REGISTRATION.
- 7) Applicants should select the name of the post for which the applicant wishes to apply.
- 8) Online applications uploaded without the photograph, details of specified documents and signature will be rejected after due process.
- 9) All the particulars mentioned in the online application will be considered as final and no modifications will be allowed after the submission of the application. Once an application is submitted, no further request for change of details will be entertained. Hence, the applicants are instructed to fill the online application with utmost care and caution as no correspondence regarding change of details will be entertained.

### 10) **PRINT OPTION**:

- a) After submitting the application, applicants can save / print their application in PDF format.
- b) On entering user ID and password, applicants can download their application and print, if required.
- c) Applicants need not send the printout of the online application or any other supporting documents to the Commission. Application and all the required certificates will be verified only when the applicants come up for certificate verification.

For further details refer para 2 of "Instructions to Applicants"

### **15. UPLOAD OF DOCUMENTS:**

Applicants should upload the required documents for proof in respect of all the claims made in the application with reference to this notification as and when called for. If the required certificates are not uploaded by the applicant, within the stipulated time, his/her application will be rejected after due process.

For further details refer para 13 of "Instructions to Applicants"

### **16. LAST DATE FOR SUBMISSION OF APPLICATION:**

Online application can be submitted upto 21.01.2022 till 11.59 p.m., after which the link will be disabled.

(For detailed information, applicants may refer to the "<u>Instructions to Applicants</u>" at the Commission's website <u>www.tnpsc.gov.in</u>).

### **DISCLAIMER**

"The Government orders relating to Equivalence of qualification are available in the Annexure III of the Notification. However, if the applicant possesses an equivalence of qualification other than one mentioned in the Commission's website and if Government orders to this effect have been issued on or before the date of this notification, applicants should furnish the details of the same while applying and should produce a copy of the Government orders, when called for by the Tamil Nadu Public Service Commission, failing which their application will be rejected after due process. The Government orders regarding equivalence of qualification issued after the date of this notification will not be considered for this recruitment".

Secretary

# ANNEXURE-I EXPERIENCE CERTIFICATE (MODEL FORMAT)

	EXPERIENCE CERTIFICATE (MOD		<u>UKPAT)</u>
1	Name and Address of the Employer / Research Institution / Firm	:	
2	Name of the Employee / Researcher		
3	Qualification possessed by the Employee /	•	
	Researcher on the Date of Joining the Firm / Institution	:	
4	Designation and year of Experience of the		
	Employee /Researcher	:	
5	Whether the employee /Researcher possesses		
	experience as laid in para. 3(B) of the		
	notification for the post of Assistant Director of	:	Yes / No
	Fisheries by Direct Recruitment. [Please see	•	
	the Para 3(B) of the Notification]		
	a) Period of Experience		From To
6	Nature of Duty / Research performed by the		
	Employee (To be mentioned in Brief)	•	
7	Whether published any scientific paper*	:	Yes / No
	a) Individual / Research Institution/ Firm	:	
	b) Name of the Journal	:	
	c) Name of the Title	:	
	d) Citation	:.	
	e) Year of Publication	•••	
	f) ISSN (International Standard Serial		
	Number)	•	
8	Whether Attendance Register / Attendance Rolls		
	/ Pay Disbursement Register and other records	:	Yes / No
	/available for this Employee / Researcher		
	* Conv of publiched scientific papers <b>chauld</b>		

\* Copy of published scientific papers **should be produced at the time of Certificate verification and Oral Test** if necessary.

@ strike out which is not applicable.

# Note:-

Firms / Research Institution which issues the certificate is cautioned that issuing of any certificate containing false details will lead to legal / penal action on them.

# **CERTIFICATE**

This is to certify that Thiru/Tmt/Selvi ...... possesses the said experience as stated above. The Scientific paper published by the Employee /Research Scholar is true as per the information given by the Employee /Research Scholar.

Signature of the Applicant

Signature

Office Seal:

Name & Designation of the Head of Institution / Firm

Place Date:

# ANNEXURE-II Paper –I [ SYLLABUS FOR WRITTEN EXAMINATION ]

# FISHERIES SCIENCE (P.G DEGREE STANDARD)

### SUBIECT CODE: 329

# UNIT- I: FISH TAXONOMY, ANATOMY, BIOLOGY, CAPTURE FISHERIES, FISH STOCK ASSESSMENT & POPULATION DYNAMICS

Systematics – Commercially important aquatic fauna and flora – marine plants, corals, crustaceans, molluscs, echinoderms, finfishes, turtles and marine mammals - external morphology – Biochemical taxonomy – Anatomy of finfish, shrimps, crabs, bivalves, gastropods and cephalopods - circulatory, respiratory, nerves, urinogenital, endocrine and skeletal systems- sensory organs-reproductive biology, maturity stages, gonodo somatic index, ponderal index, fecundity, sex ratio and spawning - eggs and larval stages and developmental biology – Fish biology – food and feeding habits – age and growth length/weight relationship – reproduction, maturation, breeding, spawning, fecundity, eggs and larvae and development – fish physiology, functions of different organ systems of finfish and shellfish- GIS and remote sensing in marine capture Fisheries, Fisheries laws and legislation ;Fisheries resources – important capture fisheries of the world, India, Tamil Nadu – Distribution, population dynamics, stock assessment, modeling, MSY, MEY – conservation of aquatic organisms – endangered aquatic animals and their conservation migration of fishes.

# **UNIT-II: INLAND AQUACULTURE, COASTAL AQUACULTURE**

# **MARICULTURE & AOUACULTURE ENGINEERING**

Freshwater aquaculture – site selection – construction of fish farms – cultivable species, corps, tilapia, murrel, catfish, freshwater prawn – culture techniques, monoculture, composite fish culture, - pre-stocking and post/stocking management – integrated fish farming – polyculture - sewage – fed fish culture - Role of cage and pen culture in enhancement of fish production from reservoirs - principles of organic cycling & detritus food chain,- use of agro - industrial waste & biofertilizer in aquaculture - cultivation of aquatic macrophytes in aquaculture - ornamental fish culture and breeding techniques of live bearers -barbs, gold fish, tetras, cichlids, Gouramis, fighter fishes and indigenous ornamental fishes – water recirculation system – commercial fish feed formulation, feeding methods –

Fish food organisms - green algae, blue green algae, spirulina, diatoms, infusoria, rotifers, cladocerans tubifex, artemia & earthworms; Coastal aquaculture- site selection – construction of fish farm – cultivable species, finfish- seabass, mullet, milk fish, grouper, cobia, snappers, Ayu, pearl spot; shellfish - tiger shrimp, white shrimp, mud crab, lobster, mussel, oyster, clam; seaweeds – culture techniques – cages and pens – Management of coastal aquaculture farms – sea ranching; Mariculture -open water cages- candidate species for mariculture; Aquaculture Engineering- land survey, survey equipments-types of dykes- types of ponds-types of canals-aerators – pumps.

# <u>UNIT-III: FISH GENETICS. FISH BIOTECHNOLOGY. FISH PATHOLOGY &</u> <u>AQUATIC HEALTH MANAGEMENT</u>

Modern trends in fish genetics - hybridization cryopreservation of fish gametes pleiotropism, lethal genes- mutation-sex linked genes-chromosomal structure aberrations- manipulation techniques- genetically and environmentally induced abnormalities -androgenesis - gynogenesis - polyploidy - genetic engineering sex reversal - cloning - transgenic fishes - sex determination - cross breeding cryopreservation of gametes; Fish pathology - Prognosis and diagnosis bioremediation -probiotics- importance of biofilm, biofloc and periphyton in aquatic health management prophylactic measures - Molecular and immunological Techniques; Pharmacology- Drugs - principles of drugs action - adverse drugs effect- anti bacterial agents - antibiotics - antiseptics and disinfectants parasites - bacterial, fungal and viral diseases - therapeutants in aquaculture -pesticides, fungicides, algicides, hormones, anesthetics, flesh colour enhancer; Fish toxicology- phytotoxins -myco toxins - maximum residual limits; Fish immunology- antigensantibody interactions, defense mechanisms in fin fish and shell fish-vaccine development - whole cell vaccine - purified macro molecules -DNA vaccines- immuno - stimulants - ELISA.

### <u>UNIT- IV: FISH HATCHERY MANAGEMENT</u>

Brood stock management of finfish and shellfish –induced breeding – hypophysation of fishes - fish pituitary glands in breeding technique - synthetic hormones - sexual maturity and breeding season of different species – breeding techniques for IMC, exotic craps, mahaseers, trouts, tilapia, catfishes, grey mullets, milk fish, pearl spot, seabass, seahorse, groupers, pacu, cobia and pompanos - off season breeding of carps -shrimp hatchery management – carp

hatchery management – food and feeding of larval stages of important shellfishes – culture of fish food organisms- water quality management in hatcheries – nursery management – seed transport techniques.

# UNIT-V:LIMNOLOGY.AQUATIC ECOLOGY & BIODIVERSITY. OCEANOGRAPHY AND AQUATIC POLLUTION & COASTAL ZONE MANAGEMENT

Physico – chemical features of freshwater systems – ponds-lakes- streams -rivers - indices of productivity of lakes - estimation of primary productivity - fresh water aquatic plants ; Aquatic ecology: Energy flow - food chain - nutrient cycle -animal relationships: symbiosis, commensalism, parasitism prey predator relationship, host parasite relationship; Aquatic biodiversity: species diversity – genetic diversity- habitat diversity - diversity indices -ecological niches - lagoons , estuaries, mangroves, coral reefs, flood plains, coastal wet lands, conservation of marine habitats; Oceanography: Physico - chemical characteristics of sea water -SST- TS- diagrams - waves, tides, currents - drift currents- Ekman spirals, upwelling - gradient currents - thermocline - Major oceanic currents of the world - EL Nino, tsunami -- oceanic sediments - manganese nodules; Aquatic pollution - sewage & domestic wastes - sewage treatment - BOD - COD - Eutrophication red tides - pesticide pollution - organo chlorine and organo phosphate pesticides -PCB - bioaccumulation- heavy metal pollution - bioremediation and phytoremediation - oil pollution - beach cleaning, microbial pollution - Bio-corrosion thermal pollution - radioactive pollution; Integrated coastal zone management -GIS - impacts of human activities on costal and ocean area.

# UNIT- VI: FISHING GEAR AND CRAFT TECHNOLOGY & EQUIPMENT ENGINEERING

FAO classification of fishing gears – gear materials - properties of netting material - twist -breaking strength - tensile strength -yarn numbering systems - direct and indirect - tex -denier -metric - runnage -selection of gear materials for different gears- Designing and fabrication of gears: gill nets, trawls, longlines, purse seines, fish traps, trolling lines, light fishing, electrical fishing, fishing gear accessories - floats, sinkers, buoys and anchors -shakles, thimbles - otter boards -G link-killey's eye -shaping of webbing by braiding, cutting - all bar cut -T cut , N cut, selvedge; Craft technology: Law of floatation- Archimedes principle- form co-efficient - Simpson's rule, ships equilibrium, trim, list, TTC, moment of change of

trim by 1 cm, grass tonnage, net tonnage, backbone assembly of wooden board, steel board construction, FRP boat construction, deck layout of trawler, gill netter, longliner, purse seiner, views of boat- profile view-half breadth plan view, sectional view, off set table -water plane area, bulk head, stern tube, types of propeller, types of rudder, facilities required for boat building yard. Equipment engineering: deck equipments, winch, power block, net hauler, longline hauler, squid jigger; Electronic equipments: echo sounder, SONAR, RADAR, Radio telephone & GPS.

# **UNIT – VII: MARINE ENGINES, NAVIGATION AND SEAMANSHIP**

Types of diesel engines – two stroke and four stroke engine; starting, ignition, fuel supply, cooling, lubrication systems - Operation and maintenance; Navigational charts - Mercator projections- earth co-ordinates - Chart reading and fixing position - bearing , position , fix, light house - chart symbols- dead reckoning - piloting - partsof magnetic compass - magnetic errors - sextant - rules of the road applicable to fishing vessels-navigational lights - life saving devices- life jacket, life buoy, life buoyant apparatus, life raft and life boat - weather warning signals - storm signals- man over board procedures, distress signals -fog signals - navigational code flags- IALA buoyage system, cardinal and lateral marks, colours.

# UNIT- VIII: FISH BIOCHEMISTRY AND FISHERIES MICROBIOLOGY

Fish biochemistry – proximate composition of fish - protein metabolism- deamination - de-carboxilation - free amino acids - essential amino acids -types of fish protein - non- protein nitrogen in fishes - fatty acids -PUFA - oxidation of fatty acids -Millard reaction; Fisheries Microbiology: microbial spoilage of fresh fishindicators of microbiological quality- food borne pathogens- *Vibrio cholerae*, *V.parahaemolyticus*, *E.coli*, *Salmonella*, *Listeria monocytogenes*, *Clostridium botulinum*, *C perfringens*, *Campylobacter* and *staphylococcus aures* - their occurrence, growth, survival, pathogenicity and toxins , Scombroid toxin, ciguatera toxin and puffer fish toxin , mycotoxin; microbial spoilage of canned & frozen products.

# UNIT- IX: FISH PROCESSING, FISH BY PRODUCTS, FISH PROCESSING EOUIPMENTS & FISH OUALITY ASSURANCE

Hygienic handling of fish –freshness testing- Rigor Mortis –fish processing methods: Drying, salt curing, smoking, icing, RSW, freezing, glazing, thawing, types of freezers - contact plate freezers - freeze drying, transportation of frozen fish – canning -Fish by products: fermented fish products, Fish sausage, Extruded products, battered andbraided products; fish waste utilization: chitin, chitosan, fish hydrolysate, FPC, fish ensilage, fish maws, isinglass, shark fin rays, fish gelatin, seaweeds, agar agar, algin, carageenan, fish meal, fish oil; application of microwave technology in product development; Fish processing equipments: deboner, deskinner, fish sausage machine, canning machineries; Fish quality assurance: Application of HACCP concept in surveillance and quality assurance programmes for raw, frozen, canned, cured, irradiated, cooked and chilled, MAP and freeze dried products; Fish packaging technology: Types of packages and packing materials, Testing, labeling– packaging for retail sale and storage. Transport and handling devices – safety and legislation aspects of packing, labeling and bar coding.

# **UNIT- X: FISHERIES ECONOMICS, MARKETING & EXTENSION**

Economics of marine capture fisheries and fish production systems –domestic and export marketing – Contribution of fisheries to GDP-marine fishery regulations – importance of cooperatives – fishermen associations, NGOs and SHGs in fisheries development – Fisheries Co - management -types of primary and secondary data forstatistical analysis for policy making – fisheries investment projects, finance and project planning – socio-economics of fisherfolk. Fisheries extension methods -Extension service for fisheries development – important fisheries development schemes and organizations – training follow up programmes – entrepreneurship development.

# PAPER –I **ZOOLOGY**

### (PG DEGREE STANDARD) CODE NO: 271

### UNIT I

Non-chordate: General Organization - classification upto class level, Modern taxonomy. Shelled Protozoans, Economic Importance, Fossil Protozoans and thier importance, Neuromotor system in ciliates. Origin of Metazoa - Theories and Evolution, Economic importance of Porifera, Polymorphism in Hydrozoa. Coral reefs - structure, formation and theories. Origin and evolution of Coelenterates. Origin and types of coelom in Bilateria. Effects of parasitism on the parasites and hosts in Helminthes and larval forms. Coelom and metamerism in Annelida, Mode of life in polychactes. Larval forms and parasitism in Crustacea. Adaptive radiation in Gastropods. Larval forms of Echinodermata and their Significance. Retrogressive Metamorphosis, Neotany and affinities of Ascidian.

#### UNIT II

Chordate: Migration in Fishes, Accessory respiration in fishes. Adaptation in deep sea fishes. Electric Organs and electro-receptors in fishes. Origin and evolution of Amphibia. Conquest of Land - Adaptations to live on land – evolutionary significance of crocodiles. Adaptive radiation in birds - Migration in Birds. Evolution: Origin of life - Bio-chemical evolution - cultural evolution. Present status of Natural Selection. Adaptation and evolution in mammals. Wild life mammals in India and Conservation measures. Endanger species and current status. Wild life Act.

#### **UNIT III**

Cell and Molecular Biology: Cellular organization-Membrane, intercellular-structure andfunction-cellular organelles. Chromosomes, types and Organization of genes. Cell division, cell cycle and regulation. Cell communication and cell signaling. Structure of DNA and RNA. Genetic code, Replication and protein synthesis.Bio-Chemistry: Structure of carbohydrates, amino acids, proteins, lipids - Glycolysis and Kreb's cycle - oxidation, reduction - oxidative phosphorylation energy conservationand release - cyclic AMP-ATP - saturated and unsaturated fatty acids - cholesterol – enzymes, mechanism, action and kinetics. Vitamins, trace elements and micronutrientsand coenzymes. Antioxidant enzymes. Hormones-classification, biosynthesis and functions.

### **UNIT IV**

Bio-Physics: Microscopy-Principles of Phase, Electron Microscope, Polarising, Fluorescent, Interference Microscope. Photo – Electric Calorimetry, Freeze drying – freezing, Microtome, Fixation, staining techniques. X-ray – Diffraction, Ultra – Violet and infrared, Spectroscopy and Autoradiography. Instrumentation methods: Centrifugation, Electrophoretic and Chromatographic techniques. PCR, DNA finger printing, RFLP, RAPD, AFLP, FISH and GISH.

#### **UNIT V**

Genetics: Gene concept, one Gene - one polypeptide - concept, Enzyme regulation - Operon concept - GAL and LAC - Operon System. Population Genetics - Hardy -Weinberg Law Genetic Equilibrium. Radiation Genetics - mechanisms of Chromosomal breakage - Mutagens and Mutagenesis - Carcinogens and carcinogenesis - Human Genetics. Karyotype - Variation in Karyotypes with special reference to syndromes, Genetic counseling. Genetic Engineering - Present Status and it uses. Human genomeproject.

#### **UNIT VI**

Bio-Statics: Collection of data. Primary and secondary - compiling and sampling methods - frequency distribution, frequency tables - diagrammatic representation - variables - measures of control tendency. Standard deviation, Standard error – Correlation, regression, regression analysis – student's "t" test and *chi*-square test. Bio-informatics: DNA and Protein sequence analysis, Prediction functional structure, protein folding, Molecular docking, Metabolic and regulatory networks, General challenges and applications. SwissProt, NCBI: GENBANK, BLAST; Multiple Sequence Alignments.

### **UNIT VII**

Physiology: With reference to mammals digestion, role of salivary gland liver, pancreas and intestinal glands in digestion, nutrition, balanced diet in manassimilation, intermediary metabolism. Composition of blood- coagulation -Transport of oxygen, carbon dioxide, blood pigments-mechanism of respiration. Muscles, mechanism of muscle contraction, temperature regulation, acid, base balance and homeostasis. Nerve impulse conduction, neurotransmitters – receptors, photo, phono and chemo reception. Nephron and urine formation. Kidney stone formation. Comparison of excretion in fish, reptiles and mammals. Endocrine glands-testis, ovary and hypothalamo-hypophyseal gonadal relationship. Pheromones and reproduction. Biolumninescence, biological rhythms.

### **UNIT VIII**

Immuno-Biology: Immune responses - Primary, Secondary and Theories. Immunity types – Innate - Acquired- cell mediated and Humoral immunity-Autoimmunity, Typesof Antigens and immuno globulins. Vaccinations – ELISA, RIA Techniques. Developmental Biology: Gametogenesis, Fertilization: Significance, polyspermy Gynogenesis, Androgenesis, Parthenogenesis, Polarity, Symmetry, Radiant, Embryonic fields, Differentiation - Nuclear and Chemical factors, Inductors and organisers, Genes and organizers, Regeneration - Polarity and Gradient in regeneration. ART. Stem cell biology-sources, types and applications.

### **UNIT IX**

Resource Ecology and Management, Renewable and Non-Renewable natural resources. Energy resources - conventional and non-conventional. Bioremediation. Habitat ecology. Wild Life conservation, Management and Acts. Air, Water, Soil, Soundpollutions. Laws related to Environment and Environmental Protection Act. Spaceecology and Radiation ecology. Climate changes and Global warming.

### **UNIT X**

Economic Zoology: Parasitism and commensalism - protozoan parasites and diseases- helminthes parasites and diseases on man and domestic animals; Beneficial and harmful insects - insect pests on crops and stored products. Control methods. Pheromones and IPM. Sericulture, apiculture, lac culture, sea weed culture, poultry, pisciculture and induced breeding. Shell fisheries - fin and shells. Aqua culture practices in Tamil Nadu and their impact on the environment and on agriculture.

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### <u>PAPER –I</u> <u>MARINE BIOLOGY</u> (PG DEGREE STANDARD)

#### SUBJECT CODE: 294

### **UNIT – I: TAXONOMY AND BIOLOGY OF MARINE ORGANISMS**

Classification of marine fin and shell fishes - Important fishes of the world – Their identification; sea turtle and mammals – Classification and diagnostic characters. Food and feeding; age and growth and reproductive biology; fish eggs and larvaeand developmental biology. Functional morphology of digestive, respiratory, circulatory, excretory and reproductive systems in fin and shellfish. Principles of immunology and Endocrine system.

### **UNIT – II: MARINE CAPTURE FISHERY AND STOCK ASSESSMENT**

Classification, definitions of fishery zones and fishery resources – Neritic, benthic, demersal, pelagic &deep sea systems; world and Indian fishery resources; potential marine fishery resources of Indian EEZ. Population dynamics; mortality – Natality - theory of fishing - Catch Per Unit Effort (CPUE) - Maximum Sustainable Yield (MSY)- Maximum Economic Yield (MEY) - Fishery Maximum Economic Yield (FMEY) – Overfishing.

### <u>UNIT – III: METEOROLOGY AND GEOGRAPHY</u>

Structure of atmosphere; weather and climate – Definition and concepts, characteristics and laws of black body radiation; solar radiations, its characteristics; vertical and horizontal heat balances; air temperature – Horizontal distribution; explanation of DALR, SALR and isotherms; general circulation – Monsoon characteristics, water in atmosphere, condensation; clouds and its classification; weather systems – FAO classification of fishery zones of world oceans.

### UNIT - IV: OCEANOGRAPHY (PHYSICAL, CHEMICAL AND BIOLOGICAL)

Major divisions of marine environment; Physical properties of seawater -Thermal properties of seawater; concepts of sonar, channel and shadow zone; heat budget; T-S diagram; properties of Waves: types of waves and properties of ocean waves; Tides: Origin of the tides; Wind and Ocean circulation – Types of currents.Chemical properties of seawater: Concept of chlorinity and salinity of seawater; gases, organic and particulate matter. Origin, distribution of nutrients cycle and their

significance. Upwelling; manganese nodules. Primary and Secondary productivity of the coastal environment; Phytoplankton and Zooplankton: Classification, distribution, their role in coastal ecosystems and adaptations. Primary production and factors affecting primary production. Seaweed, seagrass, mangrove and coral ecosystems; Fouling and boring organisms.

# **UNIT – V: MARINE POLLUTION AND COASTAL ZONE MANAGEMENT**

Types of pollution – Organic (domestic, municipal and industrial), heavy metals, radioactive, pesticide, oil and thermal; Treatment methods (primary, secondary and tertiary); Pollution indicators; role of pollution control board and prevention of pollution. Goals and purposes of coastal zone management; methods of coastal zone management and policies involved; Coastal Regulation Zone Act, Integrated Coastal Zone Management; International treaties and conventions.

# <u>UNIT – VI: CULTURE OF COMMERCIALLY IMPORTANT MARINE FISH AND</u> <u>SHELL FISHES</u>

Present status of aquaculture in the world, in general and India, in particular; important cultivable species of fin and shell fishes; criteria for species selection; site selection for culture systems; components of aquaculture farms – Water intake and filtration systems; preparation of ponds – Water culture – Water quality parameters – Stocking – Feeding - Aquaculture systems – Land-based and open sea farming. Artificial feed formulation. Pond management; disease management; harvest and post-harvest technology. Marine Ornamental fishes – Setting up of aquarium - maintenance – Export potential and marketing.

# **UNIT – VII: HATCHERY SEED PRODUCTION TECHNOLOGY**

Hatchery seed production of commercially important fin and shell fishes; collection and transport of seeds from natural environment; criteria for site selection and construction of hatcheries – Different components of hatcheries; operation and management; induced breeding and broodstock maintenance; cryopreservation; larval rearing and culture of live feed – Chlorella, nanoflagellates, Artemia, Rotifers and Daphnia; nursery rearing.

#### <u>UNIT – VIII: NAVIGATION AND SEAMANSHIP</u>

Coastal navigation, distance and direction in navigation – Rules of the roads for fishing vessels; Navigational types and importance – Magnetic compass, Gyro compass, Sextant, bearing instruments; chart abbreviations and symbols; types of charts and chart reading; sounding instruments – Echo sounder; lead lines; electronic navigation and communication; radio-transmitters and receivers, VHF, SONAR, block diagram, Radio telephones, RADAR and GPS; bad weather conditions and warning signals.

### <u> UNIT – IX: DISASTER MANAGEMENT</u>

Global warming – Types of natural and man-made hazards in fisheries and aquaculture – Cyclones, floods, droughts, tsunami, El-Nino, algal blooms, avalanches, pollution destructions; Introduction of alien / invasive species; epidemics, landslides and laws of biodiversity; management strategies – Predisaster, during disaster and post-disaster – Prevention, preparedness and mitigation; post-disaster – Different ways of detecting and predicting of disasters, methods for assessment of initial and long-term damages, reconstruction and rehabilitation; prevalent national and global management practices in disaster management; agencies involved in monitoring and early warning – District, state, national and global level; uses of communication channels and media, disaster case studies.

### UNIT – X: REMOTE SENSING, MARKETING AND CO-OPERATION

Remote sensing satellites – Application of INCOIS data in capture fisheries; introduction of marketing – Market structure and functions – Fish markets – Demand and supply of fish – Price fixation in marine fish markets, hygienic handling of fishes, cold chain marketing – Resources, availability for marketing; principles and objectives of cooperation; cooperative movement in India, problem of fisheries cooperative management in relation to resources, production and marketing; role of fishermen cooperative societies in the upliftment of marine fishers

# PAPER -II SYLLABUS FOR WRITTEN EXAMINATION Part-A

<u>கட்டாய தமிழ் மொழி தகுதித் தேர்விற்கான பாடத்திட்டம்</u> (கொள்குறி வினாவிற்கான தலைப்புகள் )

# <u>பத்தாம் வருப்பு தரம்</u>

- 1. பிரித்தெழுதுதல் / சேர்த்தெழுதுதல்.
- எதிர்ச்சொல்லை எடுத்தெழுதுதல்.
- 3. பொருந்தாச் சொல்லைக் கண்டறிதல்.
- பிழை திருத்தம் (i) சந்திப்பிழையை நீக்குதல் (ii) மரபுப் பிழைகள், வழுவுச் சொற்களை நீக்குதல் / பிறமொழிச் சொற்களை நீக்குதல்.
- 5. ஆங்கிலச் சொல்லுக்கு நேரான தமிழ்ச் சொல்லை அறிதல்.
- 6. ஒலி மற்றும் பொருள் வேறுபாடறிந்து சரியான பொருளையறிதல்.
- 7. ஒரு பொருள் தரும் பல சொற்கள்.
- 8. வேர்ச்சொல்லைத் தேர்வு செய்தல்.
- 9. வேர்ச்சொல்லைக் கொடுத்து / வினைமுற்று, வினையெச்சம், வினையாலணையும் பெயர், தொழிற் பெயரை / உருவாக்கல்.
- 10. அகர வரிசைப்படி சொற்களை சீர் செய்தல்.
- 11. சொற்களை ஒழுங்குப்படுத்தி சொற்றொடராக்குதல்.
- இருவினைகளின் பொருள் வேறுபாடு அறிதல்.
   (எ.கா.) குவிந்து-குவித்து
- 13. விடைக்கேற்ற வினாவைத் தேர்ந்தெடுத்தல்.
- 14. எவ்வகை வாக்கியம் எனக் கண்டெழுதுதல் தன்வினை, பிறவினை, செய்வினை, செயப்பாட்டு வினை வாக்கியங்களைக் கண்டெழுதுதல்.
- 15. உவமையால் விளக்கப்பெறும் பொருத்தமான பொருளைத் தேர்ந்தெழுதுதல்
- 16. அலுவல் சார்ந்த சொற்கள் (கலைச் சொல்)
- 17. മിതட ഖതകക്ഷ്.

- 18. பிறமொழிச் சொற்களுக்கு இணையான தமிழ்ச் சொற்களைக் கண்டறிதல் (எ.கா.) கோல்டு பிஸ்கட் – தங்கக் கட்டி.
- 19. ஊர்ப் பெயர்களின் மரூஉவை எழுதுக (எ.கா.) தஞ்சாவூர் தஞ்சை
- 20. நிறுத்தற்குறிகளை அறிதல்.
- 21. பேச்சு வழக்கு, எழுத்து வழக்கு (வாரான் வருகிறான்).
- 22. சொற்களை இணைத்து புதிய சொல் உருவாக்கல்.
- 23. பொருத்தமான காலம் அமைத்தல் (இறந்தகாலம், நிகழ்காலம், எதிர்காலம்).
- 24. சரியான வினாச் சொல்லைத் தேர்ந்தெடு.
- 25. சரியான இணைப்புச் சொல் (எனவே, ஏனெனில், ஆகையால், அதனால், அதுபோல).
- 26. அடைப்புக்குள் உள்ள சொல்லைத் தகுந்த இடத்தில் சேர்க்க.
- 27. இருபொருள் தருக.
- 28. குறில் நெடில் மாற்றம், பொருள் வேறுபாடு.
- 29. கூற்று, காரணம் சரியா? தவறா?
- 30. கலைச் சொற்களை அறிதல் :-
  - எ.கா. Artificial Intelligence செயற்கை நுண்ணறிவு

Super Computer - மீத்திறன் கணினி

- 31. பொருத்தமான பொருளைத் தெரிவு செய்தல்
- 32. சொற்களின் கூட்டுப் பெயர்கள் (எ.கா.) புல் –புற்கள்
- 33. சரியான தொடரைத் தேர்ந்தெடுத்தல்
- 34. பிழை திருத்துதல் (ஒரு-ஓர்)
- 35. சொல் பொருள் பொருத்துக
- 36. ஒருமை-பன்மை பிழை
- 37. பத்தியிலிருந்து வினாவிற்கான சரியான விடையைத் தேர்ந்தெடு.

# <u>Part –B</u> <u>GENERAL STUDIES</u> (DEGREE STANDARD)

# **CODE NO.003**

# UNIT-I : GENERAL SCIENCE

- (i) Scientific Knowledge and Scientific temper Power of Reasoning
   Rote Learning Vs Conceptual Learning Science as a tool to understand the past, present and future.
- (ii) Nature of Universe General Scientific Laws Mechanics Properties of Matter, Force, Motion and Energy - Everyday application of the basic principles of Mechanics, Electricity and Magnetism, Light, Sound, Heat, Nuclear Physics, Laser, Electronics and Communications.
- (iii) Elements and Compounds, Acids, Bases, Salts, Petroleum Products, Fertilizers, Pesticides.
- (iv) Main concepts of Life Science, Classification of Living Organisms, Evolution, Genetics, Physiology, Nutrition, Health and Hygiene, Human diseases.
- (v) Environment and Ecology.

# UNIT-II: CURRENT EVENTS

- (i) History Latest diary of events National symbols Profile of States

   Eminent personalities and places in news Sports Books and
   authors.
- (ii) Polity Political parties and political system in India Public awareness and General administration - Welfare oriented Government schemes and their utility, Problems in Public Delivery Systems.
- (iii) Geography Geographical landmarks.
- (iv) Economics Current socio economic issues.
- (v) Science Latest inventions in Science and Technology.

# UNIT- III: GEOGRAPHY OF INDIA

- (i) Location Physical features Monsoon, rainfall, weather and climate - Water resources - Rivers in India - Soil, minerals and natural resources - Forest and wildlife - Agricultural pattern.
- (ii) Transport Communication.
- (iii) Social geography Population density and distribution Racial, linguistic groups and major tribes.
- (iv) Natural calamity Disaster Management Environmental pollution: Reasons and preventive measures – Climate change – Green energy.

# **UNIT – IV: HISTORY AND CULTURE OF INDIA**

- (i) Indus valley civilization Guptas, Delhi Sultans, Mughals and Marathas - Age of Vijayanagaram and Bahmani Kingdoms -South Indian history.
- (ii) Change and Continuity in the Socio Cultural History of India.
- (iii) Characteristics of Indian culture, Unity in diversity Race, language, custom.
- (iv) India as a Secular State, Social Harmony.

# **UNIT-V: INDIAN POLITY**

- (i) Constitution of India Preamble to the Constitution Salient features of the Constitution Union, State and Union Territory.
- (ii) Citizenship, Fundamental rights, Fundamental duties, Directive Principles of State Policy.
- (iii) Union Executive, Union legislature State Executive,
   State Legislature Local governments, Panchayat Raj.
- (iv) Spirit of Federalism: Centre State Relationships.
- (v) Election Judiciary in India Rule of law.
- (vi) Corruption in public life Anti-corruption measures Lokpal and LokAyukta - Right to Information - Empowerment of women - Consumer protection forums, Human rights charter.

# UNIT-VI: INDIAN ECONOMY

- (i) Nature of Indian economy Five year plan models an assessment – Planning Commission and Niti Ayog.
- (ii) Sources of revenue Reserve Bank of India Fiscal Policy and Monetary Policy - Finance Commission – Resource sharing between Union and State Governments - Goods and Services Tax.
- (iii) Structure of Indian Economy and Employment Generation, Land reforms and Agriculture - Application of Science and Technology in agriculture - Industrial growth - Rural welfare oriented programmes – Social problems – Population, education, health, employment, poverty.

# UNIT-VII: INDIAN NATIONAL MOVEMENT

- (i) National renaissance Early uprising against British rule Indian National Congress - Emergence of leaders – B.R.Ambedkar, Bhagat Singh, Bharathiar, V.O.Chidambaranar, Jawaharlal Nehru, Kamarajar, Mahatma Gandhi, Maulana Abul Kalam Azad, Thanthai Periyar, Rajaji, Subash Chandra Bose and others.
- (ii) Different modes of Agitation: Growth of Satyagraha and Militant movements.
- (iii) Communalism and partition.

# UNIT- VIII : History, Culture, Heritage and Socio - Political Movements in Tamil Nadu

- (i) History of Tamil Society, related Archaeological discoveries, Tamil Literature from Sangam age till contemporary times.
- (ii) Thirukkural : (a) Significance as a Secular literature
  - (b) Relevance to Everyday Life
  - (c) Impact of Thirukkural on Humanity
  - (d) Thirukkural and Universal Values Equality, Humanism, etc
  - (e) Relevance to Socio Politico Economic affairs
  - (f) Philosophical content in Thirukkural

- (iii) Role of Tamil Nadu in freedom struggle Early agitations against British Rule Role of women in freedom struggle.
- (iv) Evolution of 19th and 20th Century Socio-Political movements in Tamil Nadu - Justice Party, Growth of Rationalism - Self Respect Movement, Dravidian movement and Principles underlying both these movements, Contributions of Thanthai Periyar and Perarignar Anna.

# UNIT – IX : Development Administration in Tamil Nadu

- (i) Human Development Indicators in Tamil Nadu and a comparative assessment across the Country – Impact of Social Reform movements in the Socio - Economic Development of Tamil Nadu.
- (ii) Political parties and Welfare schemes for various sections of people – Rationale behind Reservation Policy and access to Social Resources - Economic trends in Tamil Nadu – Role and impact of social welfare schemes in the Socio - economic development of Tamil Nadu.
- (iii) Social Justice and Social Harmony as the Cornerstones of Socio Economic development.
- (iv) Education and Health systems in Tamil Nadu.
- (v) Geography of Tamil Nadu and its impact on Economic growth.
- (vi) Achievements of Tamil Nadu in various fields.
- (vii) e-governance in Tamil Nadu.

# **UNIT-X: APTITUDE AND MENTAL ABILITY**

- (i) Simplification Percentage Highest Common Factor (HCF) -Lowest Common Multiple (LCM).
- (ii) Ratio and Proportion.
- (iii) Simple interest Compound interest Area Volume Time and Work.
- (iv) Logical Reasoning Puzzles-Dice Visual Reasoning Alpha numeric Reasoning - Number Series.

# 37 ANNEXURE - III

SI. No.	Equivalent Qualifications	Government Orders
1.	Public Services - Educational Qualification -M.Sc.Zoology (Specialization in Biotechnology) awarded byEquivalent / Lady Doak College affiliated to Madurai KamarajUniversity is equivalent toM.Sc. Zoology.	G.O.(Ms)No.27, Higher Education (K2)Department, dated 13.02.2014
2.	Public Services - Educational Qualification - M.Sc. Marine Biology & Oceanography (with B.Sc. Zoology as major) awarded by Annamalai University is equivalent to M.Sc. Zoology.	G.O.(Ms)No.116, Higher Education (K2)Department, dated 22.07.2014
3.	Public Services - Educational Qualification - M.Sc. degree in Zoology (Biotechnology) awarded by Vivekananda College (Autonomous) affiliated to Madurai Kamaraj University is equivalent to M.Sc. Zoology.	G.O.(Ms)No.116, Higher Education (K2)Department, dated 22.07.2014
4.	Public Services - Educational Qualification - M.Sc Biotechnology (Five year integrated) awarded by Annamalai University is equivalent to B.Sc Biotechnology and M.Sc Biotechnology awarded by Bharathidasan University for the purpose of employment in Public Services	G.O.(Ms)No.65, Higher Education (K2)Department, dated 24.04.2019
5.	Public Services - Educational Qualification - M.Sc Biotechnology (CBCS) awarded by Annamalai University is equivalent to M.Sc Biotechnology awarded by Bharathidasan University for the purpose of employment in Public Services	G.O.(Ms)No.65, Higher Education (K2)Department, dated 24.04.2019
6.	Public Services - Educational Qualification - M.Sc Zoology (CBCS) awarded by Annamalai University is equivalent to M.Sc Zoology for the purpose of employment in Public Services	G.O.(Ms)No.65, Higher Education (K2)Department, dated 24.04.2019
7.	Public Services - Educational Qualification - M.Sc Ocean Life Sciences awarded by University of Madras is equivalent to M.Sc Marine Biology awarded by Pondicherry University for the purpose of employment in Public Services	G.O.(Ms)No.65, Higher Education (K2)Department, dated 24.04.2019
8.	Public Services - Educational Qualification - M.Sc Biotechnology (5 year integrated) offered by Annamalai University is equivalent to M.Sc Biotechnology for the purpose of employment in Public Services.	G.O (Ms)No.266/ Higher Education (K2) Department, dated 29.11.2019
9.	Public Services - Educational Qualification - M.Sc Gene Technology Degree offered by J.J College of Arts and Science affiliated to Bharathidasan University is equivalent to M.Sc Biotechnology for the purpose of employment in Public Services.	
10.	Public Services - Educational Qualification -M.Sc Zoology (Five year Integrated) Degree offered by Annamalai University is equivalent to M.Sc Zoology degree for the purpose of employment in Public Services.	
11.	Public Services - Educational Qualification – M.Sc Zoology (Special) offered by University of Madras is equivalent to M.Sc Zoology for the purpose of employment in Public Services.	G.O (Ms)No.185/ Higher Education (K1) Department, dated
12.	Public Services - Educational Qualification – M.Sc Zoology (Wild Life Biology) offered by Bharathiyar University is equivalent to M.Sc Zoology for the purpose of employment in Public Services.	15.12.2020

# 38 ANNEXURE -IV

# CERTIFICATE OF PHYSICAL FITNESS BY <u>A SINGLE MEDICAL OFFICER</u> THE CIVIL MEDICAL BOARD

Signature of Candidate\_\_\_

I/We hereby certify that I/We have examined (full name) Thiru/Thirumathi /Selvan/Selvi\_\_\_\_\_

a Candidate\_\_\_\_\_for employment under the Government as \_\_\_\_\_\_in the

\_\_\_\_\_Office in the\_\_\_\_

\_\_\_\_\_\_department and whose signature is given above and cannot discover that he/she has any disease, communicable or otherwise constitutional affliction or bodily infirmity/except that his/her weight is in excess of/below the standard prescribed or except.

I/We do not consider this a disqualification for the employment he/she seeks.

His/Her age is according to his/her own statement

appearance about Years

Years and by

I/We also certify that he/she has marks of smallpox/vaccination.

Chest measurement in	<u>On full inspiration</u> <u>On full expiration</u>	
Weight in Kg.	Difference expansion	
Cardio – Vascular System		
Respiratory system		
His/Her vision is normal	· .	
Hypermetropic/	Myopic/	Astigmatic/
(Here enter the degree of de	efect and the strength of correc	ction glasses)
Hearing is normal/defectiv		8
Urine – Does chemical exam	nination show-	
(I) Albumen	(II) Sugar	State Specific gravit
Personal marks (at least tw	o should be mentioned)	For Identification
		1.
		2.
Signature: Rank:		
Designation:	Pres	ident
		Members (i)
Station:		(ii) Station:
Date:		Date:

39

The candidate must make the statement required below prior to his/her medical examination and must sign the declaration appended thereto. His attention is specially directed to the warning contained in the note below:-

2

1. State your name in full

2. State your age and date of Birth

3. (a) Have you ever had small-pox intermittent or any other fever, enlargement or suppuration of glands, spitting of blood, asthma, inflammation of lungs, heart disease fainting attacks, rheumatism, appendicitis?

OR

(b) Any other disease or accident requiring confinement to bed and medical or surgical treatment?

4. When were you last vaccinated

5. Have you or any of your near relation been afflicted with consumption, serefula gout, asthma, fits, epilepsy or insanity?

- 6. Have you suffered from any form of nervousness due to over work or any other cause?
- 7. Furnish the following details concerning your family

Father's age, if living and state of health

Father's age, if living and state of health (1)	Father's age at death and cause of death (2)	Number or brothers living, their ages and state of health. (3)	Number of brothers dead, their ages at and cause of death (4)
	· · ·		

Mother's age, if living and state of health (1)	Mother's age at death and cause of death (2)	Number of sisters living, their ages and state of health. (3)	Number of sisters dead, their ages at and cause of death (4)

I declared all the above answers to be, to the best of my belief, true and correct,

#### Candidate's Signature

Note:- The candidate will be held responsible for the accuracy of the above statement, by wilfully suppressing any information he will incur the risk of losing the appointment and if appointed, of forfeiting all claim to superannuation allowance or gratuity

MedI. I-68.

# ANNEXURE - V

# **TENTATIVE TIMELINE FOR THE RECRUITMENT PROCESS**

SI. No.	Process	Timeline
1.	Publication of Written Examination Results	April 2022
2.	Certificate upload for C.V.	May 2022
3.	Certificate Verification	May 2022
4.	Date of Oral Test	June 2022
5.	Counselling	June 2022

Secretary