

TAMIL NADU PUBLIC SERVICE COMMISSION

DATED: 05.02.2021

Advertisement No. 578
Notification No. 03/2021

Applications are invited from eligible candidates only through online mode upto **04.03.2021** for direct recruitment to the posts of **Assistant Director of Horticulture** and **Horticultural Officer** included in the Tamil Nadu Horticultural 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 நேர்மையற்றவர்களால் விண்ணப்பதாரருக்கு ஏற்படும் எவ்வித இழப்புக்கும் தேர்வாணையம் 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 they should apply online for this recruitment. [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 Horticulture (Post Code No. 3018)	Tamil Nadu Horticultural Service	28 (including 2 *carried forward vacancies)	Rs.56100 - 177500 (Level 22) (Revised Scale)
Horticultural Officer (Post Code No.3001)	(Service Code No. 104)	169 (including 8 ** carried forward vacancies)	Rs.37700-119500 (Level 20) (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

(i) FOR THE POST OF **ASSISTANT DIRECTOR OF HORTICULTURE**

* Carried forward vacancies : 2 [GT(G)(LV) -1 , GT(G)(HI/HH) – 1]

<u>Current vacancies</u>: 26

(ii) FOR THE POST OF **HORTICULTURAL OFFICER**

** Carried forward vacancies: **8** [GT(G)(HI/HH)-1, GT(G)(LV)-1, BC(OBCM)(G)(LD/LC/DF/AC)-1, BCM(G)(LD/LC/DF/AC)-1, MBC/DC(G)(HI/HH)-1, MBC/DC(G)(LV)-1, SC(G)(HI/HH)-1, SC(A)(G)(LV)-1]

Current vacancies: 161

36	CT(C)
1	
7	GT (G) (PSTM)
Н	GT (G) LV
1	
13	GT (W)
7	GT (W) (PSTM)
21	BC (OBCM) (G)
7	BC (OBCM)(G) (PSTM)
Т	ВС (ОВСМ) (G) НІ/НН
6	BC (OBCM)(W)
က	(OBCM)
ч	BC (OBCM) (W)
4	BCM (G)
7	BCM (G) (PSTM)
18	MBC/DC (G)
4	MBC/DC (G) (PSTM)
Н	MBC/DC (G) LD/LC/DF/AC
8	MBC/DC (W)
1	MBC/DC (W) (PSTM)
12	sc (g)
4	SC (G) (PSTM)
1	SC (G) LV
2	sc (w)
1	SC (W) (PSTM)
Н	SC (W) LD/LC/DF/AC
2	SC (A) (G)
1	SC (A) (G) (PSTM)
1	SC (A) (W)
1	SC (A) (W) (PSTM)
1	ST (G)
1	ST (W) (PSTM)
161	TOTAL

<u>Abbreviations:</u>- GT- General Turn; BC (OBCM) - Backward Class (Other than Backward Class Muslims); BCM - Backward Class Muslims; MBC/DC - Most Backward Class / De-notified Community; SC - Scheduled Caste; SC(A) - Scheduled Caste - Arunthathiar; ST –Scheduled Tribes; G – General; W – Women; PSTM- Persons Studied in Tamil Medium; LV- Low vision; HI- Hearing impaired; HH- Hard of hearing; LD– Locomotor disability; LC-Leprosy cured; DF – Dwarfism; AC- Acid attack victims;

3. IMPORTANT DATES AND TIME:

Date of notification		05.02.2021
Last date for submission of online application		04.03.2021
Last date for payment of fee through Bank SBI/HDFC Bank		06.03.2021
	Dates of written examina	tion
Horticultural	Paper-I : Subject paper Horticulture (Degree standard)	18.04.2021 10.00A.M. to 01.00 P.M.
Officer	Paper-II : General Studies (Degree standard)	18.04.2021
Assistant Director of Horticulture	Paper-II : General Studies (Degree standard)	03.00P.M. to 05.00 P.M.
	Paper-I : Subject paper Horticulture (P.G.Degree standard)	19.04.2021 10.00A.M. to 01.00 P.M.

Note

Refer Annexure-IV 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.	For both posts SCs, SC(A)s, STs, MBCs/DCs, BC(OBCM)s, BCMs and Destitute	No Age limit
	Widows of all categories.	
2.	'Others' [i.e. applicants not belonging BCMs]	ng to SCs, SC(A)s, STs, MBCs/DCs, BC(OBCM)s and
	i) For the post of Assistant Director of Horticulture	Should not have completed 30 years
	ii) For the post of Horticultural Officer	Should not have completed 30 years [Persons holding a post graduate degree or Ph.D in Horticulture should not have completed 32 years.]

Explanation: No maximum age limit shall mean that the applicants should not have completed 59 years of age either on the date of notification or at the time of selection /appointment to the post.

Note

"Others" [i.e., Applicants not belonging to SCs, SC(A)s, STs, MBCs/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 48 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 05.02.2021)

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

Name of the post	Educational Qualification
	Must possess a degree in M.Sc., Horticulture (or)
	M.Sc., Fruit Science (or)
Assistant Director of	M.Sc., Floriculture and Landscaping (or)
Horticulture	M.Sc., Vegetable Science (or)
	M.Sc., Spices / Plantation and Medicinal and Aromatic
	Plants.
Horticultural Officer	Must possess a degree in B.Sc., Horticulture.

- (i) The qualification prescribed for the posts should have been obtained by passing the required qualification in the following order of studies: 10th + 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-II 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**. 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 "Instructions to Applicants").

(C) CERTIFICATE OF PHYSICAL FITNESS:

Applicants selected for appointment to the said posts will be required to produce a certificate of physical fitness in the form prescribed below;

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

(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).					
	<u>Note</u>					
	Applicants who have already registered in One Time online					
	Registration system and are within the validity period of 5 years					
	are exempted.					
	Examination Fee					
b)	<u>Note</u>	Rs.200/-				
	The Examination fee should be paid at the time of submitting					
	the online application for this recruitment if they are not eligible					
	for the concession noted below.					

- (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	

- (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 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. (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 or it can be paid offline at the SBI / HDFC Bank within two days from 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, MBCs/DCs, BC(OBCM)s, BCMs, Destitute Widows, Persons with Benchmark Disability and Ex-servicemen are given in <u>paras. 3D, 5 and 6 of 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.**

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:

I) FOR THE POST OF ASSISTANT DIRECTOR OF HORTICULTURE

Subject	Duration	Maximum marks	Minimum quarks for selection SCs, SC(A)s, STs, MBCs/ DCs, BC(OBCM)s & BCMs	on Others
i. Paper -I (Subject Paper) (200 questions) Horticulture (P.G.Degree Standard) (Code No:279)	3 Hours	300		
ii. Paper - II (General Studies) (100 questions) (Code No:003) General studies (Degree standard) - 75 questions and Aptitude and mental ability test (SSLC standard) - 25	2 Hours	200	171	228
questions iii. Interview and Records Total		70 570		

II) FOR THE POST OF HORTICULTURAL OFFICER

Subject	Duration	Maximum marks	marks for selecti	ualifying on Others
 i. Paper -I (Subject Paper) (200 questions) Horticulture (Degree Standard) (Code No:278) 	3 Hours	300		
ii. Paper - II (General Studies) (100 questions) (Code No:003) General studies (Degree standard) - 75 questions and	2 Hours	200	171	228
Aptitude and mental ability test (SSLC standard) - 25 questions iii. Interview and Records		70		
iii. Interview and Records Total		70 570		

Note: (For both posts)

- a) The questions in subject paper "Horticulture" Paper-I will be set in English only and the questions in General Studies Paper-II will be set both in Tamil and English.
- b) Refer to para. 17 of "Instructions to Applicants" with regard to Instructions to be followed while appearing for competitive Examinations conducted by the Commission.
- c) The syllabus for written examination is available in **Annexure-III** 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 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')

Note:

Firstly the selection will be made for 'two' and 'eight' carried forward vacancies for the posts of Assistant Director of Horticulture and Horticultural Officer respectively. [Section 27 of the Tamil Nadu Government Servants (Conditions of Service) Act, 2016]. Secondly, the selection will be made for '26' and '161' regular vacancies for the posts of Assistant Director of Horticulture and Horticultural Officer respectively following the rule of reservation.

10. CENTRES FOR EXAMINATION:

The examination will be held at the following centres.

SI.	Name of the	Centre	SI.No.	Name of the	Centre
No.	Centre	Code		Centre	Code
1.	Chennai	0101	5.	Tirunelveli	2601
2.	Madurai	1001	6.	Salem	1701
3.	Coimbatore	0201	7.	Thanjavur	1901
4.	Tiruchirapalli	2501			

- (i) Applicants should choose any one of the above centres for writing the examination.
- (ii) Request for change of examination centre will not be permitted (For further details refer Para 17(A)(ii) of "Instructions to Applicants")
- (iii) The Commission reserves the right to increase or decrease the number of examination centres and to re-allot the applicants accordingly.
- (iv) 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. [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.
- (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.
- (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 online 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 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.

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

- (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.
- (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.

(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 "Destitute Widows" and "Exservicemen" 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, HI, HH, LD, LC, DF, AC.** [LV- Low vision, HI- Hearing impaired, HH- Hard of hearing, LD- Locomotor disability, LC- Leprosy cured, DF- Dwarfism, AC-Acid attack victims,].

(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-semerit 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.
- (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.
- (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 applicants for appointment in such cases must be produced at the stage / time of certificate verification without fail. All such events that occur after the submission 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.
- (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.
- (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) Refer **Annexure-I** of this notification regarding determination of community and reservation in employment for Transgender.

(O) 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']

(P) 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, 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(W) 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 425 1002 on all working days between 10.00 am and 5.45 pm. Queries relating to One Time Registration/ online application may be sent to helpdesk@tnpscexams.in. Other queries may be sent to contacttnpsc@gmail.com. [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) After notification, during the process of recruitment till publication of final results, no information under Right to Information Act 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 "Instructions to Applicants").
- 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 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.
- 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.

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

16. LAST DATE FOR SUBMISSION OF APPLICATION:

Online application can be submitted upto 04.03.2021 till 11.59 p.m., after which the link will be disabled.

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

DISCLAIMER

"The Government orders relating to Equivalence of qualification are available on the Tamil Nadu Public Service Commission's website. 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. The Government orders regarding equivalence of qualification issued after the date of this notification will not be considered for this recruitment".

Secretary



Abstract

Social Welfare and Nutritious Meal Programme Department – Third Gender Welfare – Determination of the Community and Reservation in Employment for Third Gender – Orders – Issued.

Social Welfare and Nutritious Meal Programme [SW8 (2)] Department

G.O.(Ms) No.90

Dated 22.12.2017 ஹேவிளம்பி, மார்கழி 7 திருவள்ளுவர் ஆண்டு 2048

Read:

ANNEXURE-I

- G.O. (Ms) No.127, Labour and Employment Department, dated 27.10.2014
- G.O. (Ms) No.28, Backward Classes, Most Backward Class and Minorities Welfare Department, Dated 06.04.2015
- G.O. (Ms) No.71, Social Welfare and Nutritious Meal Programme Department, Dated 06.11.2015

Read also:

- From the Secretary, Tamil Nadu Public Service Commission, D.O.Letter No.4471/RND-D2/2013, dated 12.07.2016
- From the Director of Social Welfare, Letter Roc.No.21096/WW.1(3)/ 2017, dated 31.07.2017

ORDER:-

In the Government Order first read above, orders were issued that Third Gender may register their names in Employment Exchange offices based on the certificate identifying them as Transgender issued by the Tamil Nadu Transgender Welfare Board (TGWB) and to sponsor their names for appointment in the vacancies reserved for women category namely 30% and as well as vacancies reserved for General Category (both Men and Women) namely 70%.

- In the Government Order second read above, orders were issued classifying the "Transgender of Eunuch (Thirunangai or Aravani)" as Most Backward Class by including at SI.No.36-C in the list of Most Backward Classes.
- 3. In the Government Order third read above, among other things orders were issued, that Transgender will be identified as 'Third Gender' apart from the Binary Gender System and they have the right to decide their self-identified gender as male or female or as the third gender.
- 4. The Secretary, Tamil Nadu Public Service Commission in the D.O. letter fourth read above has sought for following clarifications in this matter with regard to:-
 - (i) Considering the Transgender under 30% reservation for Women.

- (ii) Treating the Transgender candidates who have claimed communal status under Scheduled Caste/ Scheduled Caste (A)/ Scheduled Tribe by producing respective Community Certificate confirming their claim.
- 5. After careful examination, in consultation with the concerned departments and the Director of Social Welfare, the Government hereby issue the following order regarding the determination of community and reservation in employment for the Third Gender in order to streamline the procedures to be followed by the recruiting agencies like Tamil Nadu Public Service Commission, Teachers Recruitment Board, Uniformed Services Recruitment Board, Medical Recruitment Board, etc., and Employment Exchange offices / appointing authorities, in sponsoring / recruiting / selecting the Third Gender candidates for appointment in Government Service:-

Determination of the Community:-

- (i) The Third Gender candidates, who do not possess any community certificate may be considered under Most Backward Class as per G.O.(Ms).No.28, Backward Classes, Most Backward Class and Minorities Welfare Department, dated 06.04.2015.
- (ii) The Third Gender candidates who belong to Scheduled Caste/Scheduled Caste (A)/Scheduled Tribe communities, and possess community certificate as such, may be considered as per their respective community.
- (iii) The Third Gender candidates who belong to the communities other than Scheduled Caste/Scheduled Caste (A)/Scheduled Tribe and possess community certificate as such (not covered under point (i) above) may be considered as per their own community or as Most Backward Class whichever is advantageous to them as per their option and once the individual exercises option for community selection it should be crystallized and this option should not be changed in future.

Reservation in Employment:-

- (i) The Third Gender candidates who identify themselves as "Female" by self-declaration supported by the certificate (ID card) issued by the Tamil Nadu Third Gender Welfare Board (TNTGWB) may be considered against both 30% reservation for women as well as 70% reservation for the General category (both Men & Women).
- (ii) The Third Gender candidates, who identify themselves as "Male" or "Third Gender", may be considered against the 70% reservation for General category (both Men & Women) as the case may be.

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

(By Order of the Governor)

K. Manivasan, Principal Secretary to Government

To The Director of Social Welfare, Chennai-15 The Commissioner of Social Defence, Chennai-10 The Director, Integrated Child Development Services Scheme, Chennal-113

The Secretary, Tamil Nadu Public Service

Commission, Chennai-3

All District Collectors

All Departments of the Secretariat, Chennai-9

The Commissioner of Backward Classes and Minorities Welfare, Chennai-5

The Director of Most Backward Class and Denotified Communities, Chennal-5

The Director of Adi Dravidar Welfare, Chennai-5

The Director of Tribal Welfare, Chennal-5

The Member Secretary, Tamil Nadu Backward Classes Commission, Chennai-4

The Teacher Recruitment Board, Chennai-6

The Tamil Nadu Uniformed Services Recruitment

Board, Chennal-8

The Medical Services Recruitment Board, Chennai -6

The Director of Employment and Training, Chennai-32

The Secretary to Government of India, Ministry of Social

Justice and Empowerment, New Delhi

Copy to:

The Hon'ble Chief Minister's Office, Chennai-9

The Senior Personal Assistant to the Minister for Social Welfare and Nutritious Meal Programme, Chennai-9

All Sections in Social Welfare and Nutritious Meal Programme Department, Chennai-9 Stock file/Spare copy

// Forwarded by Order //

V.T.C., Section Officer

JUNE 7

ANNEXURE - II

SI. No.	Equivalent Qualifications	Government Orders
1.	தமிழ்நாடு வேளாண்மைப் பல்கலைக் கழகத்தால்	அரசாணை (நிலை) எண்.7,
	வழங்கப்படும் பிடெக்/(தோட்டக்கலை) (B.Tech	வேளாண்மை (பக) துறை, நாள்
	(Horticulture) பட்டப்படிப்பு அதே	10.01.2011.
	பல்கலைக்கழகத்தால் வழங்கப்படும் இளங்கலை	
	அறிவியல்(தோட்டக்கலை) (B.Sc/Horticulture)	
	பட்டப்படிப்பிற்கு இணையானது என	
	அங்கீகரிக்கலாம் என ஆணையிடப்பட்டுள்ளது.	
2	M.Sc. (Agri) in Horticulture awarded by Annamalai University is equivalent to M.Sc., (Horticulture)	G.O.(Ms)No.271, Agriculture (AAI) Department, dated 06.11.2017

23 ANNEXURE – III

[SYLLABUS FOR WRITTEN EXAMINATION]

SUBJECT PAPER: HORTICULTURE (P.G. DEGREE STANDARD)

SUBJECT CODE: 279

UNIT- I: PRINCIPLES OF HORTICULTURE

Scope and importance of horticulture - Scenario of horticulture industry in the regional, National and global economy - Area and production - Export and import - Nutritive value of horticultural crops - Horticultural therapy - Role of soil and climate on crop production - Planting system - HDP, UHDP and meadow orchard - Importance and methods of Irrigation - Water stress management - Essential and beneficial nutrients - Classification - Functions and deficiency symptoms of primary, secondary and micronutrients in horticulture crops - Fertigation - Weed management - Training and pruning - Cropping systems - Mulching - Role of growth regulators - Off season production - Physiological disorders and its remedies - Pests and diseases management strategies - Maturity indices - Harvest - Grading - Post harvest handling - Importance of protected cultivation in horticultural crops - Vegetable forcing - Hydroponics - Nutrient Film Technique - Aeroponics - Precision horticulture - Commercial horticulture - GAP - GMP - Organic horticulture and certification - Horticulture developmental agencies, programmes and commodity boards.

UNIT-II: PROPAGATION AND NURSERY TECHNIQUES OF HORTICULTURAL CROPS

Sexual propagation, principles, advantages and disadvantages polyembryony, seed dormancy and methods to overcome the dormancy - Factors influencing seed germination - Protrays - Containers - Media - Growing structures -Management of fruit nursery - Asexual propagation - Principles, advantages and disadvantages - Mist chamber - Rooting of vegetatively propagated plants -Physiological, anatomical and bio chemical basis of root induction - Layering, Grafting and budding principles - Methods - Problems and measures to overcome - Stock and scion relationship - Incompatibility - Propagation through specialized plant parts, rejuvenation of senile orchards through top working, progeny orchard and bud wood bank - Hardening - Nutrient management, pest and disease management in nursery. Nursery certification-micro propagation - principles and concepts - in vitro clonal propagation techniques - Media - Growth hormones - Callus induction - Direct and indirect organogenesis - Synthetic seeds - Meristem culture - Embryogenesis - Micrografting - Callus induction and sub culturing - Hardening - Packing and transport of micro propagated plants.

UNIT - III: GROWTH AND DEVELOPMENT OF HORTICULTURAL CROPS

Important phases of growth and development – Definitions, photosynthetic productivity, leaf area index (LAI) – optimum LAI in horticultural crops. Canopy development: Different stages of growth, growth curves, growth analysis in horticultural crops. Plant bio-regulators – Auxin, gibberellin, cytokinin, ethylene, inhibitors and retardants, basic functions, biosynthesis, role in crop growth and development, propagation, flowering, fruit setting, fruit thinning, fruit development, fruit drop and fruit ripening. physiological basis of training and pruning, source and sink relationship. Seed development and maturation, seed dormancy and bud dormancy, causes and breaking methods in horticultural crops. factors affecting flowering, physiology of flowering, photoperiodism in horticultural crops. Physiology of fruit growth and development, fruit setting, ripening-study of chemical manipulations on growth and development, understanding stress impact on growth and development.

UNIT - IV: BREEDING OF HORTICULTURAL CROPS

Scope and importance of plant breeding in horticultural crops - Breeding systems and objectives - Plant genetic resources - Modes of reproduction - Mechanisms of pollination control, sterility and incompatibility - Effect of mating systems. Methods of breeding in annual vegetable crops(cross and self pollinated crops) - Approaches for crop improvement – Introduction, selection, hybridization – Pedigree breeding, bulk, single seed descent method, mass selection, recurrent and reciprocal recurrent selection, back cross breeding - Heterosis breeding - Development of F1 hybrids, synthetics, composites, mutation breeding, polyploidy breeding, breeding for quality traits -Resistance breeding for biotic and abiotic stress. Methods of breeding in fruit crops -Objectives- modes of reproduction - Approaches for crop improvement - Introduction, selection, hybridization, mutation breeding, polyploidy breeding, breeding for quality traits - Resistance breeding for biotic and abiotic stresses - Biotechnological interventions. In vitro and molecular approaches - Molecular tools for breeding -Molecular markers – Protein based and PCR based detection for genetic confirmation – in vitro mutation breeding - Genetic transformation methods - Vector transformation and particle bombardment - RNAi technology - Emerging concepts and applications in horticultural crops.

UNIT - V: PRODUCTION TECHNOLOGY OF FRUIT CROPS

Scope and importance - Current scenario on national and international level production and trade of fruit crops - Field gene bank and cryopreservation of fruit crops - Species - Varieties / hybrids - Climate and soil requirements and its influence on crop growth - propagation methods and nursery technologies - Rootstocks influence-planting systems including high density planting(HDP) and ultra high density planting(UHDP) - Canopy management and crop regulation - Water management - Nutrient management - Fertigation - Cropping systems - Training and pruning - Mulching - Weed management - Use of plant growth regulators - Special horticultural practices - Role of biotic and abiotic factors, limits of fruit production and their management - Nutrient deficiency and physiological disorder and its corrective measures - Maturity indices - Harvesting - Ripening - Post harvest management - Supply chain management of important fruit crops: Mango, Banana, Acidlime, Sweet Orange, Grapes, Papaya, Guava, Sapota, Pineapple, Jackfruit, Pomegranate, Annona, Ber, Aonla, Apple, Pear, Plum, Peach, Strawberry, Litchi, Avocado, Walnut and Almond and minor fruit crops.

UNIT - VI: PRODUCTION TECHNOLOGY OF VEGETABLE CROPS

Scope and importance of warm, cool and under exploited vegetable crops -Current scenario on national and international level of production and trade of vegetable crops - Types of vegetable farming - Commercial varieties / hybrids - Climatic and soil requirements -Seasons - Seed rate and seed treatment - Nursery management - Protray nursery -Sowing/planting - Cropping systems - Nutrient management - Fertigation - Irrigation management - Plant growth regulators - Intercultural operations, weed management -Mulching - Biotic and abiotic stresses and their management - Nutrient deficiency and physiological disorder and its corrective measures - Maturity standards - Harvesting - Post harvest management -Protected cultivation - Precision farming - Seed production techniques of vegetable crops: Tomato, Brinjal, Chilli and Capsicum (Sweet pepper), Bhendi, Leguminous Vegetables (Beans, Peas, Cluster beans - Cowpea - Dolichos bean); Bulbous vegetables (onion); Tuber crops - (Potato, Tapioca, Sweet potato, Elephant footyam, Colacassia); Cucurbitaceous Vegetables (Cucumber, Bittergourd, Snakegourd, Ridgegourd, Ashgourd, Musk melon, Watermelon, Pumpkin) - Cruciferous vegetables (Cabbage, Cauliflower and Knolkhol); Root vegetables (Carrot, Radish, Beetroot, Turnip) - Leafy vegetables (Spinach, Lettuce, Palak, Amaranthus) - Perennial vegetables (Drumstick, Coccinea) - Underexploited vegetables.

UNIT - VII: PRODUCTION TECHNOLOGY OF COMMERCIAL FLOWER CROPS AND LANDSCAPING

Scope and importance of floriculture industry - Loose flower production and trade - National and international status - Commercial varieties/ hybrids - Climatic and soil requirements - Field preparation - Season - Systems of planting, transplanting techniques - Precision farming techniques - Water and nutrient management, Weed management - Training and pruning, Special horticultural practices - Pinching, disbudding, use of growth regulators - Physiological disorders and remedies - Biotic and abiotic stress management - Harvest indices, harvesting techniques - Post -harvest handling and grading, pre-cooling, packing and storage, transportation and marketing. value addition - Dry flowers - Pigment extraction - Concrete and essential oil extraction of important loose flower crops - Jasmine, Scented Rose, Chrysanthemum, Tuberose, Marigold, Crossandra, Celosia, Gomphrena, Nerium.

Scope and importance of cut flowers - Production and trade - Global and National scenario - Special nursery practices, growing environment, open cultivation, protected cultivation, soil requirements, soil decontamination techniques, planting methods, influence of environmental parameters, light, temperature, moisture, humidity and CO2 on growth and flowering - Water and nutrient management, Fertigation, weed management, ratooning, training and pruning, special horticultural practices - Use of growth regulators, flower forcing and year round flowering through physiological interventions, chemical regulation, physiological disorders and remedies, environmental manipulation - Biotic and abiotic stress management - Cut flower standards and grades, harvest indices, harvesting techniques, post-harvest handling of cut Rose, cut Chrysanthemum, carnation, gerbera, anthurium, orchids, gladiolus, cut foliages and fillers.

Principles of landscape designing – Styles of gardening - Types of gardening viz., Mughal, Japanese, English, Persian, Italian, French gardening - Garden components – Plants for container growing – Indoor plants - Plants for instant gardens – Plants for spring, summer, winter and autumn - Ornamental trees and burlapping - Shrub, annuals, climbers and creepers, hedge and edge plants (foliage and flowering) - Cactus and succulent, xeriscapping - Interior scaping – Garden adornments - Principles and styles of flower arrangements – Bonsai styles and culture – Different gardening: industrial, institutional, public and private landscaping – Vertical garden – Roof garden – Terrace garden – Sky rise garden – Scenic gardens - Landscaping for roadways and traffic islands – Garden with water features and water conservation – Speciality garden – Dish, terrarium, bottle, miniature, bog and rock garden.

Lawn – Classification of turf grasses - Conditions for healthy turf – Soil properties, micro irrigation, nutrient management – Turf grass establishment and maintenance – Astroturf and maintenance - Overview of software for Computer Aided Design and Drafting (CADD) - AUTOCAD plants and design - AUTOCAD - File handling.

UNIT - VIII: PRODUCTION TECHNOLOGY OF SPICES AND PLANTATION CROPS

Scope and importance of spices and plantation crops - Present status - National and International trade - Climatic and soil requirements - Commercial varieties/hybrids - Season - Propagation - Sowing/planting - Seed rate and seed treatment - Nutrient and water management - Intercropping - Mixed cropping - Multitier cropping - Weed management - Mulching - Shade and canopy regulation - Nutrient deficiencies - Biotic and abiotic stress management - Harvest and post- harvest management and processing - Organic farming and certification of major spices and plantation crops - Spice crops : Black pepper, Cardamom, Turmeric, Ginger, Coriander, Fenugreek, Fennel, Cumin and Ajowan, Nutmeg, Clove, Cinnamon, Allspice, Tamarind, Garcinia, Garlic, Vanilla, Curry Leaf and Paprika. Plantation crops: Coffee, Tea, Rubber, Cashew, Coconut, Oilpalm, Palmyrah, Arecanut, Cocoa and Betelvine.

UNIT - IX: PRODUCTION TECHNOLOGY OF MEDICINAL AND AROMATIC CROPS Scope and importance of medicinal and aromatic plants. - Production and trade National and International scenario of herbal and perfumery industry, WTO - Export and import status, Indian system of medicine, in situ and ex situ conservation. Classification of medicinal and aromatic crops - Organic production and certification - Climatic and soil requirements - Varieties and species - Propagation -Sowing/planting - Nutrient and water management, Weed management - Biotic and abiotic stress management Harvest index-harvesting, Post harvest handling - Drying, processing, grading, packing and storage, processing and value addition; Quality standards in herbal products. Production of secondary metabolites - Distillation of essential oils and quality analysis. GAP - GCP - GMP. Medicinal crops: Senna, Periwinkle, Coleus, Aswagandha, Glory Lily and Sarpagandha. Dioscorea sp., Aloe vera, Phyllanthus amarus, Andrographis paniculata and Medicinal solanum, Isabgol, Poppy, Safed Musli, Stevia rebaudiana and Mucuna pruriens, Aromatic crops: Palmarosa, Lemongrass, Citronella, Vettiver,

Geranium, Artemisia, Mentha, Ocimum, Eucalyptus, Rosemary, Thyme, Patchouli,

Lavender, Marjoram, Oreganum.

UNIT - X: POST- HARVEST TECHNOLOGY OF HORTICULTURAL CROPS

Scope and importance – National and Global scenario of post-harvest technology in horticultural crops – Harvest indices, harvesting methods in horticultural crops – Harvesting practices for specific market requirements - Influence of pre harvest factors on post harvest quality and shelf life of horticultural crops – Factors leading to post harvest losses. Ethylene action on ripening of fruits and ethylene management – Pre-cooling – Treatments prior to transport – Chlorination, waxing, chemicals, bio-control agents and natural plant products. Storage methods viz., ventilated, refrigerated, MAS, CAS – Physical injuries and disorders during storage – Post-harvest disease and insect management. Packaging technologies - Packaging materials and transport - Principles and methods of preservation – Minimal processing of fruits and vegetables – Pre-treatment – Blanching, canning and irradiation – Value added including, encapsulated fruit flavours, nutritionally enriched / fortified products in horticultural crops - Food safety standards.

SUBJECT PAPER: HORTICULTURE (DEGREE STANDARD)

SUBJECT CODE: 278

UNIT- I: FUNDAMENTALS OF HORTICULTURE

Scope and importance – State, National and Global scenario of horticultural crops – Area and production – Import and export – Nutritive value of horticultural crops – Horticultural zones of Tamil Nadu and India – National and regional agencies involved in promotion of horticultural Industry in India (NHB, APEDA and Commodity Boards) – Classification of horticultural crops – Factors limiting horticultural crop production – Role of season – Soil and climate requirements – Physical and chemical properties of soil – Climatic factors – Light, temperature, photoperiod, relative humidity, rainfall, altitude, microclimate – Kitchen gardening –Nutrition gardening – Truck gardening – Market gardening – Vegetable forcing – Protected and precision horticulture – Hydroponics, Aeroponics – Nutrient Film Technique – Horticulture therapy.

UNIT - II: GROWTH AND DEVELOPMENT OF HORTICULTURAL CROPS

Important phases of growth and development - Bearing habits - Classification of horticultural crops based on life cycle - Annual, biennial perennial (woody and herbaceous perennials) - Fruitfulness and unfruitfulness - External and internal factors associated with unfruitfulness - Physiology of flowering, fruit set, ripening and senescence - Fruitdrop - Causes and control measures - Plant growth regulators - Functions and role in horticultural crops - Bud dormancy - Dormancy breaking - Parthenocarpy - Parthenogenesis - Polyembryony - Stenospermocarpy - Vivipary - Apomixis.

UNIT - III: PROPAGATION OF HORTICULTURAL CROPS

Propagation – Definition – Establishment of nursery – Site selection - Tools and implements propagation structures - Mist chamber, phytotron - Humidifiers – Greenhouse – Glasshouse – Polyhouse - Shade net, glass house, poly tunnels, cold frames and hotbeds, pit nursery - Media and containers – Soil sterilization - Sexual propagation – Merits and demerits – Crops propagated through seeds - Seed viability, longevity, dormancy, germination – Pre-sowing treatment – stratification, scarification, seed priming, seedling vigour – Raised seed bed and pro-tray nursery – Asexual propagation – Merits and demerits – Methods of vegetative propagation – Identification of plus trees – Mother block, scion bank – Clonal nursery – Cutting – Layering – Grafting, budding types – Anatomical and physiological basis of grafting – Stock scion relationship, graft compatibility -Budwood selection and certification – Propagation through specialized plant parts (bulbs, tubers, offsets, runners, suckers, slip, crown, rhizomes, corms) – Quality management and nursery certification – Micro propagation – Application – infrastructure requirements – Types of media – Stages of micro propagation – Micro grafting – *in vitro* propagation of important horticultural crops.

UNIT - IV: MANAGEMENT TECHNIQUES FOR HORTICULTURAL CROPS

Planning – Layout and management of orchards – Fencing – Wind breaks and shelter beds – Spacing – Planting system – Physical and chemical properties – Soil reaction – acid, saline and alkaline soils – Soil fertility - Essential elements – Functions - Organic manures and inorganic fertilizers, bio-fertilizers, vermi-composting - Applications and management – Nutrient deficiencies and corrective measures - Physiological disorders and remedies - Irrigation – Critical stages of water requirement – Effect of water stress on crop yield – Anti-transpirants – management of irrigation water quality - Conventional and micro irrigation – Fertigation - Mulching – Sod culture – Weed management – Application growth regulators – Training and pruning principles and methods - Rejuvenation of senile and old orchards – Cropping systems - Cover cropping - Multitier cropping – Intercropping – Special horticultural techniques (pinching, thinning, disbudding, blanching, smudging, notching, ringing) - Principles of organic horticulture – GAP and GMP.

UNIT - V: PRODUCTION TECHNOLOGY OF FRUIT CROPS

Scope and importance of fruit crops - Composition and uses - Origin and distribution - Species - Season - Climate and soil requirement - Varieties and hybrids - Propagation techniques - Planting systems and planting density -Including High density planting (HDP) and ultra high-density planting (UHDP) -spacing - Water and nutrient management - Fertigation - Weed management - Canopy management - Training and pruning - Intercultural practices - Off season production - Special horticultural techniques - Use of plant growth regulators - Maturity indices - Harvest and yield - Nutrient deficiencies and physiological disorders and its corrective measures and management of important pest and diseases of important fruit crops - Mango, Banana, Acidlime, Sweet orange, Mandarin, Grapes, Papaya, Guava, Sapota, Pineapple, Jackfruit, Pomegranate, Aonla, Annona, Ber, Apple, Pear, Plum, Peach, Strawberry, Litchi, Avocado, Walnut and Almond and minor tropical, arid and temperate fruit crops.

UNIT- VI: PRODUCTION TECHNOLOGY OF VEGETABLE CROPS

Scope and importance of vegetable crops - Composition and uses - Origin and distribution - Area and production - Soil and climatic requirements - Varieties and hybrids - Propagation methods - Seed rate - Sowing and nursery practises - Containerized seedling production - Season - Planting methods - Water, nutrient and weed management - Fertigation - Training for vegetables - Intercultural practices - Maturity indices - Harvest and yield - Nutrient deficiencies and physiological disorder and its corrective measures of important vegetable crops: Tomato, Brinjal, Chilli and

Capsicum (Sweet Pepper), Bhendi, Leguminous vegetables (Beans, Peas, Cluster beans, Cowpea, Dolichos bean); Bulbous vegetables (Onion, Garlic); Tuber crops - (Potato, Tapioca, Sweet potato, Elephant footyam, Colacassia); Cucurbitaceous vegetables (Cucumber, Bittergourd, Snakegourd, Ridgegourd, Ashgourd, Muskmelon, Watermelon, Pumpkin) - Cruciferous vegetables (Cabbage, Cauliflower and Knolkhol); Root vegetables (Carrot, Radish, Bee root, Turnip) - Leafy vegetables (Spinach, Lettuce, Palak, Amaranthus) - Perennial vegetables (Drumstick, Coccinea) - Protected cultivation of vegetable crops -Precision farming of important vegetable crops and seed production.

UNIT - VII: FLORICULTURE & LANDSCAPE GARDENING

Scope and importance of flower crops production - Uses - Origin and distribution - Area and production - Climate and soil requirement - Species and varieties - Propagation, season - Spacing and planting methods - Irrigation, nutrient management - Fertigation - Weed management - Training and pruning - Intercultural operations - Special horticultural techniques - Growth regulators - Off season production - Maturity indices -Harvest and yield and management of important pest and diseases for important loose flower crops: Jasmine, Rose, Tuberose, Chrysanthemum, Marigold, Nerium and Crossandra – Cut flowers - Rose, Carnation, Anthurium, Orchid and Gerbera – Cutfoliage and fillers. Principles of Landscape designing – Styles of gardening - Types of gardening viz., Hindu, English, Mughal, Japanese, Persian, Italian, French gardening -Garden components -Trees foliage flowering and avenue trees - Burlapping -Shrubs - Flowering annuals creepers and Climbers - Cacti and succulents -Lawn - Astroturf - Types of grasses – Layout, planting and maintenance of lawn – Hedge and edge plants - Indoor plants and interior scaping - Garden adornments - Principles and styles of flower arrangements - Bonsai styles and culture - Industrial, Institutional, Public and Private landscaping - Special types of gardening - Bog garden, dish, terrarium, bottle, roof, vertical gardening and greenwall.

UNIT - VIII: PRODUCTION TECHNOLOGY OF SPICES AND PLANTATION CROPS

Scope and Importance of spices and plantation crops - Composition and uses - Origin and distribution – Area and production – Climate and soil requirements - Species and varieties - Season, seed rate / propagation methods – Spacing - Planting system – High density planting – Irrigation and nutrient management – Fertigation and weed management – Training and pruning – Cropping systems – Multitier cropping – Cover cropping – Inter cropping - Growth regulators – Mulching - Shade and canopy regulation – Maturity indices, harvest, yield and management of important pest and diseases and processing m e t h o d s of important plantation and spice crops: Major, seed, tree, herbal spices and minor spices - Black Pepper, Cardamom, Turmeric, Ginger, Curry leaf, Clove, Nutmeg, Cinnamon, Coriander, Fenugreek, Cumin, Tamarind, all spice and vanilla

Plantation crops - Tea, Coffee, Rubber, Cocoa, Coconut, Oilpalm, Cashew, Palmyrah,
 Arecanut.

UNIT - IX: PRODUCTION TECHNOLOGY OF MEDICINAL AND AROMATIC CROPS

Scope and importance of medicinal and aromatic crops - Composition and uses - Origin and distribution - Area and production - *Ex situ* and *insitu* conservation - Classification of medicinal and aromatic crops - Constraints in medicinal plant cultivation - Climate and soil - Varieties - Propagation - Nursery practices - Planting methods - Cropping systems - Manures & fertilizers - Irrigation - Intercultural operations - Harvest indices - Harvest & yield and management of important pest and diseases - Production systems - Contract farming - GAP - GCP - GMP - Organic production and certification - Classification and distillation methods of essential oils - Secondary metabolite production - Value addition - Organisational support for promotion of medicinal and aromatic crops - Medicinal crops: Senna, Periwinkle, Glory lily, Aswagandha, Medicinal coleus and Solanum, Sweet flag, Aloe, Isabgol, *Phyllanthus*, *Stevia*, Opium poppy. Aromatic crops: Lemon grass, Citronella, Vetiver, Ocimum, Davana, Mint, Geranium, Patchouli and Eucalyptus.

UNIT - X: POST- HARVEST TECHNOLOGY OF HORTICULTURAL CROPS

Importance of post-harvest handling in horticultural crops – Maturity indices – Post-harvest handling methods – Washing – Grading - Waxing – Grades and standards – Methods of packing - Types of containers and their advantages and disadvantages – Storage - Principles and methods of refrigerated and gas storage - Storage methods - Pre-cooling - Controlled atmospheric storage, Modified atmospheric storage – Low pressure storage and cold chain concept - Importance and scope of processing industry in India, general principles of fruit and vegetable preservation like canning, dehydration, freezing, fermentation - Use of chemicals(preservatives) and irradiation – GMP – Food safety and quality control.

SYLLABUS FOR WRITTEN EXAMINATION GENERAL STUDIES (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.

<u>UNIT- VIII : History, Culture, Heritage and Socio - Political Movements in Tamil Nadu</u>

- (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.

ANNEXURE - IV

TENTATIVE TIMELINE FOR THE RECRUITMENT PROCESS

SI. No.	Process	Timeline
1.	Publication of Results	MAY 2021
2.	Certificate upload for C.V.	JUNE 2021
3.	Certificate Verification	JULY 2021
4.	Date of Oral Test	AUGUST 2021
5.	Counselling	AUGUST 2021

Secretary