

# TAMIL NADU PUBLIC SERVICE COMMISSION

## NOTIFICATION NO.13/2017

#### DATED: 26.05.2017

Applications are invited only through online mode upto 21.06.2017 for Direct Recruitment to the post of Automobile Engineer in the Motor Vehicles Maintenance Department and to the post of Automobile Engineer in the Police Transport Workshop-Cum-Training School.

It is mandatory for the 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 should apply online for this recruitment. [The one-Time Registration will be valid for 5 years from the date of registration. Thereafter, the registration should be renewed by paying the prescribed fee.]

SI. No.	Name of the Post	Name of the Service	No. of Vacancies	Scale of Pay
1.	Automobile Engineer in the Motor Vehicles Maintenance Department. (Post Code No.1788) (2013-14)	Tamil Nadu General	1	Rs. 15600 - 39100 + Grade pay Rs.5400/- p.m.
2.	Automobile Engineer in the Police Transport Workshop-Cum-Training School, Avadi and Regional Police Transport Workshop, Tiruchirappalli. (Post Code No.3016) (2014-15)	General Service (Service Code No.035)	2	Rs. 15600 - 39100 + Grade pay Rs.5400/- p.m.

## 2. DISTRIBUTION OF VACANCIES

SI. No.	Name of the post	GT(G)	SCA(W) (PSTM)	MBC/DC (G)	Total
1.	Automobile Engineer in the Motor Vehicles Maintenance Department.	-	-	1	1
2.	Automobile Engineer in the Police Transport Workshop-Cum-Training School, Avadi and Regional Police Transport Workshop, Tiruchirappalli.	1	1	-	2

#### Abbreviation:-

A - Arunthathiar, G - General, W – Women, PSTM- Persons Studied in Tamil Medium.

#### 3. IMPORTANT DATES AND TIME

Date of Notification	2	6.05.2017
Last date for submission of application	2	21.06.2017
Last date for payment of Fee through		2.06.2017
Bank(State Bank of India or Indian Bank)	4	23.06.2017
Date of Writt	en Examination	
Paper – I (Subject Paper)	20.08.2017 FN	10.00 A.M. to 01.00 P.M
Paper – II (General Studies)	20.08.2017 AN	02.30 P.M. to 04.30 P.M

4. FEES		
a)	Registration FeeFor One Time Registration (Revised with effect from 01.03.2017 videG.O.(Ms).No.32, Personnel and Administrative Reforms (M)Department, dated 01.03.2017).NoteApplicants who have already registered in One Time Registrationsystem paying Rs.50/- before 01.03.2017 and those who haveregistered for One-Time Registration on or after 01.03.2017 by payingRs.150/- are exempted from paying the registration fee for thisrecruitment.	Rs.150/-
b)	Examination Fee         For Examination         Note         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.	Rs.200/-

## **EXAMINATION FEE CONCESSION**

Category	Concession	Condition
<ul> <li>(i) Scheduled Castes/</li> <li>Scheduled Caste</li> <li>(Arunthathiyars) and</li> <li>Scheduled Tribes</li> </ul>	Full Exemption	
<ul><li>(ii) Differently Abled Persons, Destitute Widow of all communities</li></ul>	Full Exemption	<ul> <li>(i) For Differently Abled Persons, the disability should be not less than 40%.</li> <li>(ii) For DWs, the DW certificate should have been obtained from the RDO / Sub Collector / Assistant Collector.</li> </ul>
<ul> <li>(iii) Most Backward Class / Denotified Communities, Backward Classes (Other than Muslim), Backward Class (Muslim)</li> </ul>	Those who have not availed three free chances so far in the previous recruitments may avail exemption from payment of examination fee.	Should not have availed three free chances in the previous recruitments.
(iv) Ex-Servicemen	Those who have not availed two free chances so far in the previous recruitments may avail exemption from payment of examination fee.	<ul> <li>(i) Should not have availed two free chances in the previous recruitments.</li> <li>(ii) Fee concession will not apply to those who have already been recruited to any class or service or category.</li> </ul>

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#### Note:

- (i) The three / two free chances referred to above are not for EACH POST but for ANY THREE / TWO APPLICATION ONLY. The claim for exemption from payment of examination fee made in any application which is rejected/admitted or withdrawn will be counted as free chance availed.
- (ii) Failure to pay the prescribed fee along with the application in-time will be liable for rejection of application.
- (iii) The number of free chances availed by the applicant means, the total number of free chances hitherto availed by the applicant in his/her earlier application submitted to the Commission for any post/recruitment.
- (iv) If, the Examination fee concession claimed in the application is found to exceed the admissible limits as announced above, the application will be rejected at any stage of selection. The Number of free chances availed by the applicants will be counted from all previous applications submitted through One Time Registration and / or submitted directly without One Time Registration.

(For further details regarding examination fee concession, refer para 12 of <u>"Instructions to</u> <u>Applicants</u>").

#### 5. MODE OF PAYMENT OF EXAMINIATION FEE

- Examination fee Rs.200/- (Rupees Two hundred only) is payable by online through Net Banking/Credit card/Debit card or it can be paid by offline at State Bank of India / Indian Bank within 2 days from the date of submission of online application by choosing the option in the online application.
- Applicants have to register their basic particulars through One -Time Registration which is mandatory on payment of Rs.150/- (Rupees One Hundred and Fifty only) towards registration fee and then should apply online for this recruitment. The One-Time Registration will be valid for 5 years from the date of registration. Thereafter, the registration should be renewed by paying the prescribed fee. Applicants who have already registered in 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.
- Applicants have also to pay the service charges applicable to the State Bank of India / Indian Bank.
- 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 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. (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 concession, refer para 2 of <u>"Instructions to Applicants</u>").

#### **6. QUALIFICATIONS**

#### (A) AGE LIMIT (as on 01.07.2017)

SI. No.	Category of Applicants	Maximum Age
1.	SCs, SC(A)s, STs, MBCs/DCs, BCs, BCMs and	No Age limit
	Destitute Widows of all Castes.	No Age infin
2.	'Others' [i.e. applicants not belonging to SCs, SC(A)s,	35 Years
	STs, MBCs/DCs, BCs and BCMs].	(should not have
		completed)

#### <u>Note</u>

"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 para 5 of "Instructions to Applicants")

#### Age Concession

#### (i) For Differently Abled Persons

- (a) No maximum age limit for applicants who belong to SCs, SC(A)s, STs, MBCs/DCs, BC(OBCM)s and BCMs.
- (b) "Others" not belonging to any of the categories mentioned in "a" above are eligible for age concession upto 10 years over and above the maximum age limit prescribed.

#### (ii) For Ex-servicemen

- (a) No maximum age limit for applicants who belong to SCs, SC(A)s, STs, MBCs/DCs, BC(OBCM)s, BCMs.
- (b) The maximum age limit is 48 years for "Others" i.e. applicants not belonging to any of the categories mentioned in (a) above.
- (c) The above mentioned age concession will not apply to the Ex-servicemen applicants those who have already been recruited to any class or service or category.

#### (B) EDUCATIONAL QUALIFICATION (as on 26.05.2017)

Applicants should possess the following or its equivalent qualification awarded by any University or Institution recognized by the University Grants Commission or the State Board as the case may be.

SI. No.	Name of the post	Qualification	
1	Automobile Engineer in the Motor Vehicles Maintenance Department	<ul> <li>(i) (a) A degree in Automobile (or) Mechanical Engineering         (Or)         (b) A Post Diploma in Automobile Engineering awarded by the State Board of Technical Education and Training, Tamil Nadu or Licentiate or Diploma in Automobile or Mechanical Engineering.</li> </ul>	
		<ul> <li>(AND)</li> <li>(ii) Experience for a period of not less than five years in the administration of an office and the management of workshops connected with the maintenance and upkeep of Motor Vehicles.</li> </ul>	
		<b>Explanation:</b> A workshop shall mean any workshop under the control o the Government / Public / Private Organisation and Registered under the Factories Act 1948(Central Act LXII of 1948)	

2	Automobile Engineer in the Police Transport Workshop- Cum-Training School, Avadi and Regional Police Transport Workshop, Tiruchirappalli	(i)	Must possess a degree in Automobile or Mechanical Engineering or Diploma in Automobile Engineering awarded by the Madras Institute of Technology, Chrompet or a Post Diploma in Automobile Engineering or a Diploma in Automobile Engineering or Mechanical Engineering with Auto Elective as one of the subjects awarded by the State Board of Technical Education and Training, Tamil Nadu or of any recognised Institution or Board.
		(ii)	Must have experience in supervisory capacity in an Automobile Workshop for a period as indicated below. <u>Degree Holders:</u> Not less than three years. <u>Post Diploma Holders:</u> Not less than four Years. <u>Diploma Holders:</u> Not less than five years.
		(iii)	Must possess a valid license to drive light transport vehicles.
			Explanation-I
			A recognised Institution or Board shall mean Institution or Board recognised by the Government of India or the Government of State in India.
			Explanation-II
			Automobile workshop shall mean any Automobile workshop under the control of the Government/Public/Private organisation and registered under the Factories Act, 1948 (Central Act. LXIII of 1948)

#### <u>Note</u>

notification)

i) The qualification prescribed for these posts should have been obtained by passing the required qualification in the order of studies, viz., 10<sup>th</sup> + HSC or its equivalent + Bachelor's Degree + PG Degree as required under Section 25 of Tamil Nadu Government Servants (Conditions of Service) Act, 2016.
 (Results of the examination should have been declared on or before the date of

ii) The qualifications considered equivalent are indicated in <u>Annexure-I</u> to this notification. (Refer also to the disclaimer annexed to the notification)

iii) Applicants claiming equivalence of qualification should upload and submit evidence for equivalence of qualification in the form of G.O. issued prior to the date of this notification when called for, failing which, their application will be summarily rejected. The G.Os issued regarding equivalence of prescribed qualification after the date of this notification will not be accepted.

(For further details refer para10 of <u>"Instructions to Applicants</u>").

iv) The applicants should submit experience certificate in the prescribed format as provided in **Annexure-II** to this Notification.

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#### (C) CERTIFICATE OF PHYSICAL FITNESS

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

SI.	Name of the Post	Standard of	Form of Certificate
No.		Vision	of Physical Fitness
1. 2.	Automobile Engineering in the Motor Vehicles Maintenance Department Automobile Engineer in the Police Transport Workshop-Cum-Training School, Avadi and Regional Police Transport Workshop, Tiruchirappalli.	Standard-II	Form prescribed for Executive post.

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 details refer para 11 of Commission's 'Instructions to Applicants')

#### 7. CONCESSIONS

- (i) Concessions in the matter of age and/or fees allowed to SC's, SC(A)'s, ST's, MBC's/DC's, BC's, BCM's, Destitute Widows, Differently Abled Persons, Ex-servicemen, other categories of persons etc., are given in para 12 to 14 of the 'Instructions to Applicants'.
- (ii) Persons claiming concessions referred to above and other claims made in the application have to produce evidence for such claim when called for, otherwise his/her application will be liable for rejection.

#### 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 Tamil Nadu Government Servants (Conditions of Service) Act, 2016).

#### 8. SCHEME OF EXAMINATION (OBJECTIVE TYPE) AND ORAL TEST

		Duration Maximum - Marks	Minimum Qualifying Marks for selection		
Subject	Duration		SCs, SC(A)s, STs, MBCs/ DCs, BCs and BCMs	Others	
(i) <u>Paper – I</u> AUTOMOBILE AND MECHANICAL ENGINEERING (Code No-281)Degree Standard (200 Questions).	3 Hours	300			
<ul> <li>(a) Automobile Engineering         <ul> <li>(100 Questions)</li> <li>AND</li> <li>(b) Mechanical Engineering                 (100 Questions)</li> </ul> </li> </ul>			171	228	
ii. <u>Paper -II</u> GENERAL STUDIES (Code No-003)(100 Questions) General Studies (Degree Standard) – 75 Questions and Aptitude and Mental Ability (SSLC Standard) – 25 Questions.	2 Hours	200			
iii. Interview and Records		70			
	Total	570			

<u>Note</u>

- (i) The Questions in Paper-I will be set in English only and Paper-II "<u>General Studies</u>" will be set both in English and in Tamil.
- (ii) Refer para 22 of "<u>Instructions to Applicants</u>" in regard to Instructions to be followed while appearing for competitive Examinations conducted by the Commission.
- (iii) The syllabus for the subjects Paper-I (Subject Paper) and Paper-II (General Studies) are available in <u>Annexure-III</u> to this Notification.

#### 9. CENTRE FOR EXAMINATION

Examinations will be held at the CHENNAI CENTRE (CODE - 0100) only.

Note

- (i) Request for change of venue will not be complied with (For further details refer "<u>Instructions</u> <u>to Applicants</u>").
- (ii) The Commission reserves the right to increase the number of examination centres and to re-allot the applicants.
- (iii) Applicants should appear for the written examination / Certificate Verification/ Oral Test at their own expenses.

#### **10. 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. 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. Applicant's appearance in the Written Examination and Oral Test is compulsory. An Applicant who has not appeared for the Written Examination or the Oral Test will not be considered for selection, even if he/she secures qualifying marks for selection.

(For further details refer paragraph 23 (b) of "Instructions to Applicants")

#### 11. NO OBJECTION CERTIFICATE / INFORMATION TO THE EMPLOYER

No Objection Certificate obtained from appropriate authority shall be produced at the time of Certificate Verification. Failure to produce at that time will lead to rejection of application. For details refer <u>para 15 (g) of 'Instructions to Applicants'</u>. Any violation of this instruction will be liable for / end in rejection of application and forfeit his/her candidature.

#### **12. GENERAL INFORMATIONS**

- A. The rule of reservation of appointments is applicable to both the posts.
- B. In G.O.(Ms.) No.145, Personnel and Administrative Reforms (S) Department, dated 30.09.2010, and G.O.(Ms.)No.40 Personnel and Administrative Reforms(S) Department dated 30.04.2014 the Government have issued orders to fill up 20% of all vacancies in direct recruitment on preferential basis to persons who studied the prescribed qualification in Tamil Medium. The 20% reservation of vacancies on preferential allotment to Persons Studied in Tamil Medium (PSTM) will apply for this recruitment. (Applicants claiming this reservation should have studied the prescribed qualification for the post in Tamil Medium and should have the certificate for the same. Having written the examinations in Tamil language alone will not qualify for claiming this reservation). If the Applicants with PSTM Certificate are not available for selection for appointment against reserved turn, such turn shall be filled up by Non-PSTM Applicants but belonging to the respective communal category. The PSTM certificate shall be produced / uploaded by the applicant in prescribed format / proforma available in the Commission's website at <u>'www.tnpsc.gov.in'</u> which shall be obtained from the Head of the Institution when called for by the commission.

(For further details refer para 27 (XIX) of "Instructions to Applicants")

- C. The number of vacancies advertised is only approximate and is liable for modification including reduction with reference to vacancy position at any time before finalisation of selection.
- D. The selection for appointment to the above said posts are purely provisional subject to final orders on pending Writ Petitions, if any, filed at Madras High Court and Madurai Bench of Madras High Court.
- E. As per Section 26 and 27(c) of Tamil Nadu Government Servants (Conditions of Service) Act, 2016, reservation of appointment to "Destitute Widows" and "Ex-servicemen" will not apply to this recruitment.
- F. In G.O.Ms.No.13 Welfare of Differently Abled Persons (DAP3.2) Department, dated 02.03.2016, the post of Automobile Engineer in the Police Transport Workshop has not been identified as suitable for Differently Abled persons. Hence, reservation to Differently Abled persons is not applicable to this post. Further, the post of <u>Automobile Engineer in the Motor Vehicles Maintenance Department</u> has been identified as suitable for the following categories of Differently Abled Persons:-

Categories of Differently Abled Persons Suitable	Functional classification
LV/HH/OA/OL	LV-Low Vision (40% to 70%) HH-Hard of Hearing (55% to 80%) OA-One Arm (40% to 70%) OL-One Leg (40% to 70%)

However, the turn for reservation of vacancy to Differently Abled Persons does not arise for the post of Automobile Engineer in Motor Vehicles Maintenance Department in this recruitment.

- G. The Differently Abled persons should upload a copy of certificate of physical fitness specifying the nature of physical handicap and the degree of disability based on the norms laid down, from the Medical Board to the effect that his/her handicap will not render him/her incapable of efficiently discharging the duties attached to the post to which he / she has been selected when called for by the Tamil Nadu Public Service Commission.
- H. 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
- I. Wherever vacancies are reserved for Arunthathiyars on preferential basis, even after filling up of 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 up by Scheduled Castes other than Arunthathiyars.
- J. Evidence for claims made in the online application should be uploaded / submitted in time when documents are called for. Any subsequent claim made thereafter on submission of online application will not be entertained. Failure to submit the documents within the stipulated time limit will entail rejection of application.

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- K. Correct and True information regarding arrest, convictions / debarment / disqualification by any recruiting agency, criminal or any disciplinary proceedings initiated / pending or finalised, 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 i.e. the details thereof, originals of the judgement, order/ or G.O. dropping further action in Departmental proceedings or any document that may prove the suitability of such applicants for a Government appointment in such cases must be produced at the stage / time of certificate verification without fail.
- L. Incomplete applications and applications containing wrong claims or incorrect particulars relating to category of reservation / other basic qualification / eligibility wise / age / communal categories / educational qualification / PSTM / physical qualification and other basic eligibility criteria will be liable for rejection.
- M. One Time Registration is not an application for any Post / Recruitment. Though the details / particulars were furnished in the one Time Registration by the applicants, the details / particulars furnished in the online application for this recruitment alone will be taken into consideration. Tamil Nadu Public Service 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.

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

- a) Applicants should ensure their eligibility for examination. The Applicants applying for the examination should go through all instructions carefully and ensure that they fulfil all eligibility conditions for admission to examination. Their admission to all stages of the examination will be purely provisional subject to satisfaction of the eligibility conditions. Mere issue of memo of admission to the applicants will not imply that his/her candidature has been fully cleared by the Commission.
- b) The <u>Hall Tickets</u> for eligible applicants will be made available in the Commission's Website <u>www.tnpsc.gov.in</u> or <u>www.tnpscexams.net</u> or <u>www.tnpscexams.in</u> for downloading by applicants. No Hall Tickets will be sent by post. So the applicants should watch TNPSC website before the scheduled date of examination.

#### c) Communication to Applicants

Individual communication regarding the date and time of certificate verification, oral test and counselling 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.

d) Grievance Redressal Cell for guidance of applicants: In case of any guidance /information / clarification regarding applications, candidature, etc., applicants can contact Tamil Nadu Public Service Commission's Office in person or over Telephone No. 044-25332833 / 25332855 or the Commission's Office Toll-Free No. 1800 425 1002 on all working days between 10.00 a.m. and 05.45 p.m.

#### e) Mobile Phones and other Articles Banned

i. Applicants are not allowed to bring Pager, Cellular Phone, Calculator, Watches and Ring with Inbuilt Memory Notes etc., or any other Electronic device and Non Electronic devices such as P&G Design Data Book, Books, Notes, Hand Bags and Recording Device either as separate piece or part of something used by the applicant such as Watch or Ring etc., to the examination hall / room on the date of examination.

- ii. Do not bring into the Examination Hall any article such as books, notes, loose sheets, electronic or any other type of calculators, mathematical and drawing instruments, Log Tables, stencils of maps, slide rules, Text Books, rough sheets etc., except the permitted writing material (i.e. pen).
- iii. If they are found to be in possession of any such thing or instrument 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 (For further details refer <u>"Instructions to Applicants</u>").
- iv. Applicants are advised in their own interest not to bring any of the banned items including Mobile Phones / Pager to the venue of the examination, as arrangements for safekeeping cannot be assured.
- f) 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 certificates and certificates regarding their physical disability etc.,) which should be submitted when called for by the Tamil Nadu Public Service Commission. The 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 viz. Written Examination and Oral Test will be purely provisional, subject to their satisfying the prescribed eligibility conditions. If, on verification at any time before or after Written Examination, Certificate Verification and Oral Test, it is found that they do not fulfil any of the eligibility conditions, their candidature for the examination will be liable for rejection / cancellation by the Commission. (For further details refer <u>"Instructions to Applicants"</u>)
- g) If any of their claims is found to be incorrect, it will lead to rejection of their candidature and suitable penal action.
- h) Unfair means strictly prohibited: No applicant shall copy from the papers of any other applicant or permit his papers to be copied or give or attempt to give or obtain or attempt to obtain irregular assistance of any description. (For further details refer <u>"Instructions to</u> <u>Applicants</u>")
- i) Conduct in 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 severely viewed and penalised. (For further details refer <u>"Instructions to Applicants</u>")
- j) For violation of "Instructions to Applicants" in any manner, suitable penalty will be imposed as per the "Instructions to Applicants" or as deemed fit by the Commission.

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

- 1. Applicants should apply only through online mode in the Commission's Websites <u>www.tnpsc.gov.in</u> / <u>www.tnpscexams.net</u> / <u>www.tnpscexams.in</u>
- 2. One Time Registration (OTR) and applicant Dashboard are 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 5 years from the date of Registration. All the applications should be submitted using the One Time Registration ID and password registered by the applicant.
- For applying in One Time Registration, the applicants should have scanned image of their photograph, certificate wherever insisted and signature in CD/DVD/Pen Drive to upload the photo, certificate and signature.

- 4. Applicants who have already registered in One Time Registration on or before 29.09.2015 shall use their existing user ID and Password to create applicants Dashboard in the new One Time Registration system. No applicant is permitted to create more than one registration ID in One Time Registration.
- 5. Enter the Unique ID and password to view the already available information and update them.
- 6. One Time Registration is not an application for any post. It is just collection of information from the applicants and giving a separate dashboard to each applicant to facilitate them to maintain their own profile. Applicant 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. Select the name of the post or service for which the applicant wishes to apply.
- 8. Applicants are required to upload their photograph and signature as per the specifications given in the Guidelines for Scanning and Upload of Photograph and Signature.
- 9. An Online application uploaded without the photograph, specified documents and signature will be rejected.
- 10. All the particulars mentioned in the online application including name of the Applicant, Post applied, Educational Qualifications, Communal Category, Date of Birth, Address, Email ID, Centre of Examination etc. will be considered as final and no modifications will be allowed after the last date specified for applying online. Since certain fields are firm and fixed and cannot be edited, applicants are requested to fill in the online application form with the utmost care and caution as no correspondence regarding change of details will be entertained.
- 11. Print Option
  - a) After submitting the application, applicants can print / save their application in PDF format.
  - b) On entering registration number and password, applicants can download their application and print, if required.
  - c) Need not send the printout of the online application or any other supporting documents to the Commission. The application and certificates will be verified only when the applicants come up for next stage of selection.
- 12. One Time Registration will not be considered as an application for any post.

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

Applicants should upload the Certificate of Experience referred to the posts in paragraph 6(B) of the Notification in PDF format while applying online. The required certificate is not uploaded and if the certificate uploaded by the applicant is not clear and not readable, the application will be rejected without any further notice.

#### **16. LAST DATE FOR SUBMITTING APPLICATION**

The Online Application can be submitted upto 21.06.2017 till 11.59 p.m., after which the link will be disabled.

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

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Secretary

#### DISCLAIMER

"The Government orders relating to Equivalence of qualification have been hosted in the Tamil Nadu Public Service Commission website. However the applicants while applying for the examination should furnish the details of equivalence of qualification in the form of Government orders issued prior to the date of this notification, if any, which are not mentioned in Annexure-I to the notification and produce the same when called for by 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."

Secretary

## ANNEXURE-I

SI. No.	Equivalent Qualifications	Government Orders
1.	B.E (Production Engineering) and B.E (Industrial Engineering) awarded by the Universities in Tamil Nadu treated as an equivalent qualification to the B.E Degree in Mechanical Engineering.	G.O.(Ms).No.183, Personnel and Administrative Reforms (R) Department, dated 06.06.1995
2.	B.E (Civil and Transportation Engineering) awarded by Bharathiar University treated as equivalent to B.E (Automobile Engineering)	G.O.(Ms).No.22, Higher Education (J2) Department, dated 20.01.2009
3.	B.E (Manufacturing Engineering (part-time) awarded by Anna University treated as equivalent to that of B.E (Mechanical Engineering) of the Anna University.	G.O.(Ms).No.09, Energy (B2) Department, dated 28.01.2010.
4.	B.E (Mechanical and Production Engineering) is treated as equivalent to B.E (Mechanical Engineering).	G.O.(Ms).No.102, Agriculture (AA3) Department, dated 11.05.2010.
5.	Section A & B Examination conducted by the Institution of Engineers (India), Kolkata treated as equivalent to Degree in the Appropriate branch of Engineering of the Recognized Universities in India.	The Gazette of India, February 11, 2006 (MAGHA 22, 1927) Part-I-Section 1
	<ol> <li>Mechanical Engineering</li> <li>Production Engineering</li> </ol>	
6.	The Course in Part I and Part II of Technician Engineers (Mechanical) Examinations conducted by Institution Mechanical Engineers (India), treated as equivalent to Diploma in Mechanical Engineering awarded by the State Board of Technical Education and Training, Tamil Nadu.	G.O.(Ms).No.51, Personnel and Administrative Reforms (R) Department, dated 31.01.1996
7.	Diploma in Mechanical and Rural Engineering awarded by State Board of Technical Education is treated as equivalent to Diploma in Mechanical Engineering.	G.O.(Ms).No. 22, Higher Education (B1) Department, dated 12.01.2017.

## ANNEXURE-II EXPERIENCE CERTIFICATE (MODEL FORMAT)

1	Name and Address of the Firm/Workshop/ Company / Government Department / Public Sector under taking	:	
2	Whether the said Firm / Workshop/ Company registered under the Factories Act 1948(Central Act LXIII of 1948)	:	
3	Registration Number of Firm / Workshop / Company (Under Factories Act, 1948)	:	
4	Name of the Employee and Date of Birth	:	
5	Qualification possessed by the Employee on the Date of Joining Service	:	
6	Designation and period of Experience of the Employee	:	
7	Nature of the Work/Duty performed by the Employee	:	
	a) Experienced in Administration of the Office and the Management of Workshop in Maintenance and upkeep of Motor Vehicles	:	FromTo
	<ul> <li>b) Experienced in supervisory capacity in an Automobile Workshop</li> </ul>	:	FromTo
8	Whether the Employee posses valid Driving Licence for LMV	:	Yes / No
9	Whether Attendance Register / Attendance Rolls / Pay Register and other records /available for this Employee	:	Yes / No
10	Certificate by Manager of the Workshop	:	The above said employee is experienced in maintenance and upkeep of motor vehicle in our workshop as stated above. The above particulars furnished by us are correct

Office Seal: Date: Place:

Signature

Name & Designation of the issuing Authority

Note:

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

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## ANNEXURE – III PAPER-I <u>(DEGREE STANDARD)</u> <u>AUTOMOBILE ENGINEERING AND MECHANICAL ENGINEERING</u>

(Code No: 281)

#### (a) AUTOMOBILE ENGINEERING

#### **UNIT - I: ENGINES**

Petrol engine – principle and construction – diesel engine- principle and construction – four stroke and two stroke. Carburetors – types, working principle, different circuits – compensation circuits. Cooling system – air and water cooling system- forced circulation and pressure cooling system. Lubrication system – pressure lubrication – splash lubrication – wet and dry sump lubrication. Properties of lubricants and coolants. Combustion in SI and CI engines – stages of combustion –flame propagation – detonation in SI engine and knocking in CI engines. Combustion chambers – Turbo and super chargers.

#### UNIT – II: AUTOMOTIVE CHASSIS

Types of chassis layout – various types of frames – front axles – types, stub axle, front wheel geometry – Ackermann & Davis steering mechanism – steering gear boxes. Power Assisted steering. Hotch kiss and torque tube drive. Propeller shaft – final drive – types. Differential –principle and construction details- non slip differential – differential lock. Rear axle - types – full floating – ¾ quarter & semi. Wheels and rims – types and construction. Tyres – types and construction details.

#### UNIT – III: SUSPENSION AND BRAKING SYSTEM

Suspension system – requirements – types - construction details of Single leaf and multi leaf coil and torsion bar springs. Rubber, pneumatic and hyroelastic suspension. Independent suspension – shock absorbers. Braking system – need, stopping distance, classification of brakes. Drum brake and disc brake theory. Mechanical, hydraulic, pneumatic, electric and power assisted braking system. Retarders.

#### UNIT – IV: AUTOMOTIVE TRANSMISSION

Clutches – coils spring, diaphragm clutches – centrifugal and semi centrifugal clutches – multiplate clutches. Gear box – sliding mesh, constant mesh and synchromesh – construction and operation. Automatic transmission – fluid coupling, torque converter, epicyclic gear box, hydrostatic transmission, electric drive.

#### **UNIT – V: AUTOMOTIVE ELECTRICAL AND ELECTRONICS**

Battery – types, lead acid battery, battery charging, rating, and testing. Ignition system – coil, magneto and electronic ignition system – principle and operation. Spark plug – Automobile Air conditioning, power windows and central locking system – starting system – types of drives - bendix drive, solenoid drive system – charging system – generator system – types – alternator, principle and operation of cut-out and regulators. Sensors – electronic suspension – electronic steering systems.Navigation system – ABS – AIRBAG restraint system.

## UNIT – VI: VEHICLE BODY ENGINEERING

Classification of cars, buses, HCVs and LCVs – visibility – forward and rearward visibility – safety – design – safety equipments. Aerodynamics of vehicles – different types of drags – optimization techniques - wind tunnel testing for drag force and pressure distribution. Construction of cars – panels . Construction of buses –conventional and integral construction. Driver's seat – compactness of driver's cab – segmental design – modern painting processes for cars. Body trim items. Body mechanism – window winding – door lock.

## UNIT – VII: VEHICLE DYNAMICS

Concept of vibration – free, forced, undamped and damped vibration. Response analysis of single DOF, Two DOF and multi DOF. Vibration absorbers. Tyres – tyre forces and moments – longitudinal and lateral force at various slip angles. Tractive and cornering properties of tyres. Human response to vibration. Design and analysis of passive, semi active and active suspension using quarter car, half car and full car models. Steady state handling characteristics – directional control of vehicle.

## UNIT – VIII : VEHICLE CONTROL SYSTEMS

Degree of freedom for vehicle control – calculation of the control - degree of freedom. Selection of control, manipulator and measured disturbances variables. General types of vehicle controllers configuration. Dynamic behavior of first order and second order vehicle system – dynamic responses characteristics of vehicle systems. Basic control modes – proportional control – integral control. PID controls. Lambda control – knock control – adaptive knock control – drive line modeling – active suspension control.

#### UNIT – IX : AUTOMOTIVE POLLUTION AND CONTROL

Pollutants – sources, formation and effects on environment and human beings. Emission standards. HC,CO and NO formation in SI engines. Smoke emission and NOx emissions and its types from diesel engine. Particulate emissions. Control techniques – EGR, SCR, Secondary air induction, particulate trap and catalytic converters. Test procedures CVS1, CVS3 – Test cycles. NDIR analyser – flame ionization detectors – chemiluminescent analyser – dilution tunnels – gas chromotograph – smoke meters.

## UNIT – X : SERVICING&MAINTENANCE, MOTOR VEHICLE ACT

Automobile law – motor vehicle act – registration, driving licence, insurance, pollution and control, regulation. Trouble shooting and servicing of clutch, gear box, brakes, suspension and steering system. Trouble shooting and servicing of engine, engine cooling system and lubrication system – tools and equipments required for repairs – service station – organization and management of service stations.

#### (b) MECHANICAL ENGINEERING

#### **UNIT – I : MECHANICS, KINETICS AND DYNAMICS**

Statics of Particles, Equilibrium of Rigid bodies, Properties of Surfaces and Solids, Dynamics of Particles, Friction and Elements of Rigid Body Dynamics, Basics of Mechanisms, Kinematics of mechanisms, gyroscope, Gears and Gear Trains, Friction in Machine Elements, Force Analysis, Balancing, Single Degree Free Vibration, Forced Vibration, mechanisms for Control and Vibration.

#### UNIT – II : STRENGTH OF MATERIALS AND DESIGN

Stress, Strain and Deformation of Solids, Transverse Loading on Beams and Stresses in Beams, Torsion, Deflection of Beams, Energy Principles, Thin Cylinders and Thick Cylinders, Spherical Shells, Fundamentals of Design for Strength and Stiffness of Machine Members, Design of Shafts and Couplings, Design of Fasteners and Welded Joints, Design of Springs, Design of Bearings, Design of Flywheels, Design of Transmission Systems for Flexible Elements, Spur Gears and Parallel Axis Helical Gears, Bevel Gears, Worm Gears and Crossed Helical Gears, Design of single and two stage speed reducers, Design of cam, Clutches and Brakes.

#### UNIT – III : FLUID MECHANICS AND TURBO MACHINERY

Fluid properties, fluid statics, manometry, buoyancy, control volume analysis of mass, momentum and energy, fluid acceleration, differential equations of continuity and momentum, Bernoulli's equation, viscous flow of incompressible fluids, boundary layer, elementary turbulent flow, flow through pipes, head losses in pipes, bends etc. Turbomachinery: Pelton wheel, Francis and Kaplan turbines - impulse and reaction principles – velocity diagrams.

#### UNIT – IV : THERMODYNAMICS

Basic concepts, Zeroth, First and Second laws of thermodynamics, thermodynamic system and processes, Carnot cycle. irreversibility and availability, behaviour of ideal and real gases, thermodynamic relations, properties of pure substances, calculation of work and heat in ideal processes, analysis of thermodynamic cycles related to energy conversion, Fuel and combustion.

#### UNIT – V : HEAT AND MASS TRANSFER

Modes of heat transfer one dimensional heat conduction, resistance concept, electrical analogy, unsteady heat conduction, fins dimensionless parameters in free and forced convective heat transfer, various correlations for heat transfer in flow over flat plates and through pipes thermal boundary layer effect of turbulence radiative heat transfer, black and grey surfaces, shape factors, network analysis; heat exchanger performance, LMTD and NTU methods.

Basic Concepts of Mass transfer, Diffusion Mass Transfer, Fick's Law of Diffusion Steady state Molecular diffusion, Convective Mass Transfer, Momentum, Heat and Mass Transfer Analogy, Convective Mass Transfer Correlations.

Applications: Power Engineering: Steam Tables, Rankine, Brayton cycles with regeneration and reheat. I.C. Engines: air-standard Otto, Diesel cycles. Refrigeration and air-conditioning: Vapour refrigeration cycle, heat pumps, gas refrigeration, Reverse Brayton cycle; moist air: psychometric chart, basic psychometric processes.

## UNIT – VI : MATERIALS SCIENCE AND METALLURGY

Constitution of alloys and phase diagrams, steels, cast iron, TTT diagram, heat treatment of ferrous and non-ferrous metal, surface modification techniques, non-metallic materials, mechanical properties and testing, crystal defects and strengthening mechanisms, conducting and semi conducting materials, magnetic and dielectric materials, Engineering ceramics, Engineering and commodity polymers, composites.

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

Foundry Technology- types of pattern, moulding and casting methods, design of castings, defects, Hot and Cold working, metal forming processes- types and defects, metal joining processes, types and design of weldment, welding metallurgy, welding defects, Metal cutting, machine tools - center lathe, drilling, milling, grinding, gear cutting and broaching, unconventional machining processes, CNC machine tools, Part programming.

## **UNIT – VIII : METROLOGY AND QUALITY CONTROL**

Linear and angular measurements, Interferometry, laser interferometers, Types, Computer Aided Inspection, Basic concept of CMM- Types of CMM, Machine vision, Form measurement-Straightness - Flatness, Roundness, Surface finish measurement, contact and non contact method, Measurement of power, flow and temperature.Statistical quality control, control charts, acceptance sampling, reliability, TQM, 5S, ISO standards.

## UNIT – IX : CAD / CAM / CIM / FEA

Fundamentals of Computer Graphics, Geometric Modeling, Visual Realism, Assembly of Parts, CAD Standards, Fundamentals of CIM, Production Planning and Control and Computerized Process Planning, Cellular Manufacturing, Flexible Manufacturing System and Automated Guided Vehicle System, Industrial Robotics, Additive manufacturing, Just in Time(JIT), lean manufacturing, One Dimensional Problems in FEA, Two Dimensional Scalar Variable Problems, Two dimensional vector variable Problems, Isometric Parametric Formulation.

#### UNIT – X : INDUSTRIAL ENGINEERING AND MANAGEMENT

Work study - techniques, Method study - objectives - basic procedure, work measurement - objectives - basic procedure, machine loading and scheduling, product sequencing, inventory control - E O Q - quantity discounts, ABC Analysis material handling systems, operations research, simplex method, Transportation model, Assignment model CPM and PERT. Management theory and practice, planning - nature and purpose of Planning, Decision making, Organising, staffing, Motivation, Leadership, controlling, control techniques.

## **PAPER-II**

## GENERAL STUDIES (DEGREE STANDARD/OBJECTIVE TYPE)

(Code No: 003)

#### UNIT-I: GENERAL SCIENCE

**Physics** Universe-General Scientific laws-Scientific instruments-Inventions and discoveries-National scientific laboratories-Science glossary-Mechanics and properties of matter-Physical quantities, standards and units-Force, motion and energy-Electricity and Magnetism, Electronics and Communication -Heat, light and sound-Atomic and nuclear physics-Solid State Physics – Spectroscopy- Geophysics - Astronomy and space science.

**<u>Chemistry</u>** Elements and Compounds-Acids, bases and salts-Oxidation and reduction-Chemistry of ores and metals-Carbon, nitrogen and their compounds-Fertilizers, pesticides, insecticides-Biochemistry and biotechnology-Electrochemistry-Polymers and plastics.

**Botany** Main Concepts of life science-The cell-basic unit of life-Classification of living organism-Nutrition and dietetics-Respiration-Excretion of metabolic waste-Bio-communication.

**Zoology** Blood and blood circulation-Endocrine system-Reproductive system-Genetics the science of heredity-Environment, ecology, health and hygiene, Bio- diversity and its conservation-Human diseases-Communicable diseases and non- communicable diseases- prevention and remedies- Alcoholism and drug abuse-Animals, plants and human life

#### UNIT- II: CURRENT EVENTS

**<u>History</u>** Latest diary of events – National--National symbols-Profile of States-Defence, national security and terrorism-World organizations-pacts and summits-Eminent persons & places in news-Sports & games-Books & authors -Awards & honours-Cultural panorama-Latest historical events - India and its neighbours - Latest terminology- Appointments-who is who?

**Political Science** 1. India's foreign policy 2. Latest court verdicts – public opinion 3. Problems in conduct of public elections 4. Political parties and political system in India 5. Public awareness & General administration 6. Role of Voluntary organizations & Govt., 7. Welfare oriented govt. schemes, their utility

**Geography** Geographical landmarks-Policy on environment and ecology.

Economics Current socio-economic problems-New economic policy & govt. sector

**<u>Science</u>** Latest inventions on science & technology-Latest discoveries in Health Science-Mass media & communication.

#### UNIT-III : GEOGRAPHY

Earth and Universe - Solar system-Atmosphere hydrosphere, lithosphere - Monsoon, rainfall, weather and climate - Water resources - rivers in India-Soil, minerals & natural resources - Natural vegetation - Forest & wildlife-Agricultural pattern, livestock & fisheries - Transport including Surface transport & communication - Social geography – population - density and distribution-Natural calamities – disaster management-Climate change - impact and consequences - mitigation measures - Pollution Control.

#### UNIT-IV: HISTORY AND CULTURE OF INDIA

Pre-historic events -Indus valley civilization-Vedic, Aryan and Sangam age-Maurya dynasty-Buddhism and Jainism-Guptas, Delhi Sultans, Mughals and Marathas-Age of Vijayanagaram and the bahmanis-South Indian history - Culture and Heritage of Tamil people-Advent of European invasion-Expansion and consolidation of British rule - Effect of British rule on socio-economic factors-Social reforms and religious movements - India since independence-Characteristics of Indian culture-Unity in diversity – race, colour, language, custom-India-as secular state-Organizations for fine arts, dance, drama, music-Growth of rationalist, Dravidian movement in TN-Political parties and populist schemes-Prominent personalities in the various spheres – Arts, Science, literature and Philosophy – Mother Teresa, Swami Vivekananda, Pandit Ravishankar , M.S.Subbulakshmi, Rukmani Arundel and J.Krishnamoorthy etc.

#### **UNIT-V: L INDIAN POLITY**

Constitution of India - Preamble to the constitution- Salient features of constitution- Union, State and territory- Citizenship-rights amend duties- Fundamental rights- Fundamental duties- Human rights charter- Union legislature – Parliament- State executive- State Legislature – assembly- Status of Jammu & Kashmir- Local government – panchayat raj – Tamil Nadu- Judiciary in India – Rule of law/Due process of law- Indian federalism – center – state relations-. Emergency provisions- Civil services in India- Administrative challenges in a welfare state- Complexities of district administration- Elections - Election Commission Union and State. Official language and Schedule-VIII- Amendments to constitution- Schedules to constitution-. Administrative reforms & tribunals- Corruption in public life- Anti-corruption measures – Central Vigilance Commission, lok-adalats, Ombudsman, - Comptroller and Auditor General of India- Right to information - Central and State Commission- Empowerment of women- Voluntary organizations and public grievances Redressal- Consumer protection forms

## UNIT- VI: INDIAN ECONOMY

Nature of Indian economy-Need for economic planning-Five-year plan models-an assessment-Land reforms & agriculture-Application of science in agriculture Industrial growth-Capital formation and investment-Role of public sector & disinvestment-Development of infrastructure- National income- Public finance & fiscal policy- Price policy & public distribution- Banking, money & monetary policy- Role of Foreign Direct Investment (FDI)- WTO-globalization & privatization- Rural welfare oriented programmes-Social sector problems – population, education, health, employment, poverty-HRD – sustainable economic growth- Economic trends in Tamil Nadu -Energy Different sources and development- Finance Commission -Planning Commission- National Development Council

#### UNIT-VII: INDIAN NATIONAL MOVEMENT

National renaissance-Early uprising against British rule-1857 Revolt- Indian National Congress-Emergence of national leaders-Gandhi, Nehru, Tagore, Nethaji -Growth of militant movements -Different modes of agitations-Era of different Acts & Pacts-World war & final phase struggle-Communalism led to partition-Role of Tamil Nadu in freedom struggle - Rajaji, VOC, Periyar, Bharathiar & Others-Birth of political parties /political system in India since independence.

## UNIT-VIII: APTITUDE AND MENTAL ABILITY TESTS

Conversi on of information to data-Collection, compilation and presentation of data -Tables, graphs, diagrams-Parametric representation of data-Analytical interpretation of data -Simplification-Percentage-Highest Common Factor (HCF)-Lowest Common Multiple (LCM)-Ratio and Proportion-Simple interest-Compound interest-Area-Volume-Time and Work-Behavioural ability -Basic terms, Communications in information technology-Application of Information and Communication Technology (ICT)- Decision making and problem solving-Logical Reasoning-Puzzles-Dice-Visual Reasoning-Alpha numeric Reasoning-Number Series-Logical Number/Alphabetical/Diagrammatic Sequences.

-----Best of Luck------