



## TAMIL NADU PUBLIC SERVICE COMMISSION

NOTIFICATION NO: 5 / 2016  
ADVERTISEMENT NO.: 432

DATED: 04.03.2016

Applications are invited only through online mode upto 03.04.2016 for Direct Recruitment to the vacancies in the following post:-

Candidates have to Register their basic particulars through One - Time Registration which is mandatory on payment of Rs.50/- towards registration fee.

Candidates possessing Post diploma in Automobile Engineering should upload the practical experience certificate as mentioned in para 4(B) of the Educational Qualification

Name of the Posts and Post Code	Name of the Service and Code No.	Number of vacancies	Scale of pay
GENERAL FOREMAN (2013 - 2014) (Post Code. 2026)	Tamil Nadu Motor Vehicles Maintenance Subordinate Service (Code No. 051)	2 SC-1 MBC/DC (W)-1	Rs.9,300-34,800/- (PB2) + 5,100/- Grade Pay
TECHNICAL ASSISTANT (2013 - 2014) (Post Code. 2027)		6 GT -1 BC -1 GT (PSTM)-1 SC (W)-1 MBC/DC-1 BC(PSTM)-1	

**Abbreviations:** SC - Scheduled Castes / MBC/DC (W) - Most Backward Class / Denotified Community - (Woman) GT - General Turn / BC - Backward Class, GT (PSTM) - General Turn (Persons Studied in Tamil Medium) - SC (W) - Scheduled Castes(Women), MBC/DC - Most Backward Class / Denotified Community, BC (PSTM) - Backward Class (Persons Studied in Tamil Medium).

### 2. FEES:-

One - Time Registration fee	Examination fee
Rs.50/-	Rs.100/-

Candidates who have already registered in one time Registration System it is enough to pay the Examination Fee.

### EXAMINATION FEE CONCESSION:-

Category	Concession	Condition
Scheduled castes / Scheduled Caste (Arunthathiyars)	Full Exemption	--
Scheduled Tribes	Full Exemption	--
Most Backward Class / Denotified Communities	Three free Chances	For Degree Holders
Backward Classes(Other than Muslim) / Backward Classes (Muslim)	Three free Chances	For Degree Holders
Ex-Servicemen	Two free Chances	Minimum General Educational Qualification
Differently Abled Persons	Full Exemption	--
Destitute Widow	Full Exemption	--

- The three / two free chances allowed are not for **EACH POST** but for **ANY THREE /TWO APPLICATIONS ONLY**. The claim for exemption from payment of fee made in any application which is rejected / admitted or withdrawn will be counted as a free chance.

(Further details regarding Fee Concession is mentioned at para 12 of "Instructions to the Candidates")

### 3. IMPORTANT DATES:-

A	Date of Notification	04.03.2016	
B	Last date for submission of applications	03.04.2016	
C	Last date for payment of Fee through Bank	05.04.2016	
<b>Date and Time of Written Examination</b>			
D	Paper - I (Subject Paper)	03.07.2016 FN	10.00 A.M. to 01.00 P.M.
	Paper - II (General Studies)	03.07.2016 AN	02.30 P.M. to 04.30 P.M.

### 4. QUALIFICATIONS:-

#### A. AGE (as on 01.07.2016)

Sl. No.	Category of Candidates	Minimum Age (Should have completed)	Maximum Age
1	SCs, SC(A)s, STs, MBCs/DCs, BCs (OBCM)s, BCMs and DWs of all castes	18 Years	No Maximum Age Limit
2	"Others" [i.e. Candidates not belonging to SCs, SC(A)s, STs, MBCs/DCs, BCs and BCMs]	18 Years	35 Years (Should not have completed)

#### Note:-

- "Others" [i.e. Candidates not belonging to SCs, SC(A)s, STs, MBCs/DCs, BCs and BCMs] who have put in 5 years and more of service in the State / Central Government are not eligible even if they are within the age limit.

**B. EDUCATIONAL QUALIFICATION: (as on 04.03.2016): -**

Candidates should possess the following or its equivalent qualification on the date of Notification viz. 04.03.2016.

**General Foreman and Technical Assistant:**

Must possess a degree in Mechanical Engineering (or) Automobile Engineering (or) Automobile Technology of any University or Institution recognized by the University Grants Commission for the purpose of its grants;

(or)

A Post Diploma in Automobile Engineering of the State Board of Technical Education and Training, Tamil Nadu or of any recognized institution or Board with experience for a period of not less than two years in a supervisory capacity in the Automobile Workshop

Explanation: (i) An Automobile Workshop shall mean an Automobile Workshop satisfying the definition of "factory" in section 2 (m) of the Factories Act 1948.

(ii) Factory shall mean "factory" as defined in section 2 (m) of the Factories Act 1948

Note: Every person appointed to the post should obtain a driving license to drive heavy transport vehicles within the period of probation.

**Note:-**

- a) The Qualification mentioned above should have been obtained in the order of studies viz. SSLC, HSC (or its equivalent), U.G. Degree
- (i) The qualification ordered to be equivalent to the prescribed qualification are indicated in Annexure -I to this Notification

(Refer also to the Disclaimer annexed to the Notification)

- (ii) Candidates claiming equivalence of qualification should upload evidence for such claim in the form of Government Order (G.O.) issued prior to the date of this Notification. The G.O. issued after the date of Notification will not be accepted.

(Further details are at paragraph 10 of the "Instructions to the Candidates")

**C) KNOWLEDGE OF TAMIL :-**

Candidates should possess adequate knowledge of Tamil on the date of this Notification.

(For details refer para 11 of the 'Instructions to the candidates')

### 5. SCHEME OF EXAMINATION (OBJECTIVE TYPE) AND ORAL TEST:-

Subject	Duration of Examination	Maximum Marks	Minimum Qualifying Marks for Selection	
			SCs, STs, BCs and BCMs.	SC(A)s, MBCs/DCs, Others
<b>PAPER I (200 Questions)</b> Subject paper in U.G. Degree Standard  <b>Mechanical and Production Engineering (Code No.074)</b> (100 Questions) And <b>Automobile Engineering (Code No.015)</b> (100 Questions)	3 Hours	300	171	228
<b>PAPER II (100 Questions)</b> <b>General Studies</b> (Degree Standard)	2 Hours	200		
<b>Interview and Record</b>		70		
<b>Total</b>		570		

**Note:**

- i. The question paper in Paper - I will be set in English only and Paper-II will be set both in English and Tamil.
- ii. The existing syllabi for the above subjects under Paper-I (10 Units) and Paper-II (10 Units) have been clubbed together and constituted as a Single syllabus (20 Units). A single question paper in Paper-I will be set in English only.
- iii. The syllabi for Paper - I & Paper-II have been furnished in Annexure-IIA and IIB to this Notification and also available in the Commission's Website 'www.tnpsc.gov.in'.

**Note:-**

1. To use either blue or black ink Ball Point pen only.
2. Answer sheet will be invalidated if shaded in pencil.
3. The answer sheet will be invalidated if the box provided for booklet series mentioned in the Question Paper is not shaded / incorrectly shaded.
4. Each one mark will be deducted for incorrect or absence of shading Register Number.

## **6. CENTRE FOR EXAMINATION:-**

Examination will be held at **Chennai Centre (Code No. 0100)** only.

### **Note:-**

- (i) Candidates will be required to appear for the written Examination/ oral test/Certificate verification at their own expenses.
- (ii) The Commission reserves the right to increase / decrease the number of Examination Centres and to re-allot the candidates.

## **7. MODE OF PAYMENT OF EXAMINATION FEE:-**

- Examination fee Rs.100/- (Rupees Hundred only)
- Candidates have to register their basic particulars through One-Time Registration which is mandatory on payment of Rs.50/- towards registration fee. The registration shall be valid for a period of five years from the date of one-time registration.
- Candidates should also to pay the service charges applicable to the Bank. **(State Bank of India/Indian Bank)**
- Candidates can avail exemption from paying Examination Fees as per eligibility criteria.
- **Offline mode of payment in the form of DD/Postal Order etc., will not be accepted and the applications forwarded with such modes of payment will be summarily rejected.**
- Those who have already registered in the **One Time** registration system and paid the registration fee of Rs.50/- and received the registration ID **need not pay** the application fee i.e. Rs.50/- and it is enough to pay the Examination Fee of Rs.100/- alone.
- Candidates who have made **One Time Registration must apply for this post also. One Time Registration** is only to avail exemption for application fee for a period of 5 years from the date of registration.

## **8. PROCEDURE OF SELECTION:-**

Selection will be made in two successive stages i.e., (i) Written Examination and (ii) Oral Test in the form of an interview. Final selection will be made on the basis of total marks obtained by the candidates at the Written Examination and Oral Test taken together and subject to the rule of reservation of appointments. Appearance in both the papers of the Written Examination and Oral Test is compulsory. A candidate who has not appeared in any one of the papers in Written Examination or Oral Test will not be considered for selection, even if he/she secures qualifying marks in the Written Examination or Oral Test.

(Further details are at paragraph 23(b) of the 'Instructions to the candidates')

### 9. NO OBJECTION CERTIFICATE:-

For details refer para 15 (g) of the Commission's 'Instructions to the candidates'. Any violation of the instructions will be liable for or end in rejection of his / her candidature.

### 10. CONCESSIONS:-

Concessions in the matter of age and / or fees allowed to SCs, SC(A)s, STs, MBCs/DCs, BCs, BCMs, Destitute Widows, Ex-servicemen and Differently Abled persons, other categories of persons etc. are given in paragraphs 12 to 14 of the 'Instructions to the candidates'.

### 11. HOW TO APPLY:

Click here [www.tnpscexams.net](http://www.tnpscexams.net) / [www.tnpscexams.in](http://www.tnpscexams.in)

### 12. GENERAL INFORMATION:-

- A. The rule of reservation of appointments applies to these posts.
- B. In G.O.Ms.No.145, Personnel and Administrative Reforms (S) Department, dated 30.09.2010, the Government have ordered that "twenty percent of all vacancies in the appointment in the service under, the State which are to be filled by direct recruitment shall be set apart on preferential basis to persons studied in Tamil Medium and the said Tamil Medium reservation applies to this recruitment. In G.O. (Ms.) No.40, Personnel and Administrative Reforms (S) Department, dated 30.04.2014, Government have issued orders substituting the turns already earmarked to PSTM. However, for the post of **General Foreman**, PSTM turn does not arise and for the post of **Technical Assistant** the PSTM turn arises. (Candidates claiming this reservation should have studied the above 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 candidates with PSTM are not available for selection for appointment against reserved turn such turn shall be filled up by Non-PSTM candidates but belonging to the respective communal category.  
(For further details refer para 29 (xix) of the 'Instructions to candidates')
- C. The number of vacancies advertised is only approximate and is liable for modification including reduction with reference to the vacancy position at any time before finalisation of selection.
- D. If no qualified and suitable women candidates are available for selection against the vacancies reserved for them, those vacancies will be filled by male candidates belonging to the respective communal categories.

E. In G.O. (Ms.) No.25, Welfare of Differently Abled Persons (DAP 2.1) Department, dated 14.03.2013, executive orders were issued by Government approving a list of 170 posts identified under Group A & B categories as the suitable posts for the persons with disabilities and also directed that 3% of vacancies in direct recruitment for the identified post of A & B groups where the rule of reservation is applicable for the disabled persons. As far as the posts of '**General Foreman**' and '**Technical Assistant**' in Tamil Nadu Motor Vehicle Maintenance Subordinate Service are concerned, they are not identified as suitable for Differently Abled person in the above said G.O. Hence reservation to differently abled person will not apply for these posts. However, they can apply and should send the documents referred to in **para 14 (f)** of the Commission's 'Instructions to the candidates' when called for

**F. CERTIFICATE OF PHYSICAL FITNESS:-**

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

<b>Form of Certificate of Physical Fitness</b>	<b>Standard of Vision Prescribed</b>
Form prescribed for Executive Post	Standard-III

Candidates with defective vision should produce Eye Fitness Certificate from a qualified Eye Specialist.

- G. **Reservation to "Destitute Widows" and "Ex-service Men" will not apply to these posts.**
- H. Any claim relating to the selection (not related to candidature or / and claims made in the application) should be sent when called for documents / uploading document is made. Any claim received thereafter will not be entertained.
- I. Correct and true Information regarding arrest, convictions/debarment/disqualification by any recruiting agency, criminal or any disciplinary proceedings initiated or finalized, participation in agitation or any Political Organization, 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 of Acquittals, order/or G.O. dropping further action in Departmental proceedings or any document that may prove the suitability of such candidates for a Government appointment must be produced at the stage/time of Certificate Verification without fail.
- J. The selection for appointment to the above said post is purely provisional subject to final Orders on pending Writ Petitions, if any, filed in Madras High Court and Madurai Bench of Madras High Court.

- K. Applications containing wrong claims relating to other basic qualifications / eligibility criteria / age / communal categories/ educational qualification will be liable for rejection.

**13. OTHER IMPORTANT INSTRUCTIONS:-**

**a. Candidates should ensure their eligibility for examination:**

The candidates applying for the examination should 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 satisfying of the eligibility conditions.** Mere issue of memo of admission to the candidate will not imply that his/her candidature has been fully cleared by the Commission.

- b. The Hall Tickets for eligible candidates will be made available in the Commission's website [www.tnpsc.gov.in](http://www.tnpsc.gov.in) or [www.tnpsceexams.net](http://www.tnpsceexams.net) for downloading by candidates. No Hall Tickets will be sent by post. So the candidates / applicants should watch Tamil Nadu Public Service Commission website since ahead/ before the scheduled date of examinations.

**c. Facilitation Counter for guidance of candidates:**

In case of any guidance/ information / clarification of their applications, candidature, etc. candidates 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.

**d. Mobile phones and other articles banned:-**

- i. Candidates are not allowed to bring to the venue of the Examination Cellular phone, Calculator, memory notes and books etc. or any other Electronic device or Recording device either as separate piece or part of something used by the candidate such as Watch or Ring.
- ii. If they are found to be in possession of any such thing or instrument they will not be allowed to attend 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. Do not bring into the Examination Hall any article such as books, notes, loose sheets, mathematical and drawing instruments, Log Tables, stencils of maps, slide rules, Text Books, rough sheets etc. except the permitted writing material i.e. pen. No colour pen or pencil must be used.



- e. Candidates are not required to submit along with their application any certificates in support of their claims regarding age, educational qualifications, community certificates and certificates regarding their physical disability, etc., They should be submitted when called for by the Tamil Nadu Public Service Commission. The candidates 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 will be purely provisional, subject to their satisfying the prescribed eligibility conditions. If on verification at any time before or after the Written Examination and Certificate Verification, it is found that they do not fulfil any of the eligibility conditions, their candidature for the examination will be cancelled by the Commission.
- f. If any of their claims is found to be incorrect, or false it will lead to rejection / debarment
- g. **Unfair means strictly prohibited:** No candidate shall copy from any other candidate nor permit to be copied nor give nor attempt to give nor obtain nor attempt to obtain irregular assistance of any description.
- h. **Conduct in examination hall:** No candidate 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 penalized.

**The on-line application can be submitted upto 03.04.2016 till 11.59 p.m., after which the link will be disabled.**

*(For detailed information the candidates may refer Commission's "Instructions to the candidates" at the Commission's website [www.tnpsc.gov.in](http://www.tnpsc.gov.in) )*

**Secretary**

**ANNEXURE-I****G.Os relating to equivalence of qualification for B.E., (Mechanical Engineering) and B.E., (Automobile Engineering)**

Sl. No.	Degree	Equivalence Degree	G.O.
1.	B.E. (Mechanical Engineering)	B.E. (Production Engineering) and B.E. (Industrial Engineering) awarded by the Universities in Tamil Nadu	G.O.Ms.No.183, Personnel and Administrative Reforms (R) Department, dated 06.06.1995
2.	B.E. (Automobile Engineering)	கோயம்புத்தூர், பாரதியார் பல்கலைக் கழகத்துடன் இணைக்கப்பட்டுள்ள ஈரோட்டில் உள்ள சாலை மற்றும் போக்குவரத்து தொழில்நுட்ப நிலையத்தினால் வழங்கப்படும் பொறியியல் இளைஞர் (தானியங்கி பொறியியல்) B.E., (Automobile Engineering)	அ.ஆ, நிலை எண்.343, பணியாளர் மற்றும் நிருவாகச் சீர்திருத்தத் (ஆர்) துறை, நாள் 13.09.1996
3.	B.E. (Mechanical Engineering)	B.E., Manufacturing Engineering (Part-time) awarded by Anna University	G.O.Ms.No.9, Energy (B2) Department, dated 28.01.2010
4.	B.E. (Mechanical Engineering)	B.E. (Mechanical and Production Engineering)	G.O.Ms.No.102, Agriculture (AA3) Department, dated 11.05.2010
5.	B.Tech (Mechanical Engineering)	6 years integrated U.G. level Engineering B.Tech degree Programme in Mechanical Engineering (for Speech and Hearing Impaired Students) awarded by Kalasalingam University	G.O.(Ms)41, Higher Education (J2) Department, dated 03.03.14.

**DISCLAIMER**

“ The Government orders relating to Equivalence of qualification have been hosted in the Tamil Nadu Public Service Commission website. However, the candidates while applying for the examination should furnish the equivalence of qualification in the form of Government order, if any, which are not mentioned in the Annexure-I to the Notification and produce the same when called for by Tamil Nadu Public Service Commission”.

Secretary

157  
9

141

R.A.P.-A

GOVERNMENT OF TAMIL NADU

ABSTRACT

50370

Qualification-Recognition of B.E.(Production Engineering) and B.E.(Industrial Engineering) of various Universities as equivalent to B.E. (Mechanical Engineering) for purpose of employment in Public Services-Orders-Issued.

PERSONNEL AND ADMINISTRATIVE REFORMS (R) DEPARTMENT

No. 183

Dated: 6.6.1995.

Read:



- G.O.Ms.No.956, Education Department, Dated 2.6.88.
- G.O.Ms.No.1409, Public Works (R2) Department, Dated 10.7.90.
- From the Director of Technical Education, Letter No.8314/A3/91, Dated 14.5.93.
- From the Secretary, Tamil Nadu Public Service Commission, Letter No.712/D63/94, Dated 31.8.94.

ORDER:

In the order first read above, orders were issued that B.E. Degree in Production Engineering be prescribed as an alternative qualification wherever B.E. Mechanical Engineering is prescribed as a qualification for appointment to posts under Tamil Nadu Educational Service and Tamil Nadu Technical Education Subordinate Service. In the Government Order second read above, the B.E. Degree in Production Engineering and B.E. Degree in Industrial Engineering of the Anna University, Madras alone have been treated as equivalent to the degree of B.E.(Mechanical) for the purpose of appointment to the post of Assistant Engineer (Mechanical) in the Tamil Nadu Engineering Service in the Public Works Department. In consequence, the candidates possessing B.E.(Production Engineering) qualification of other Universities in the State may experience difficulty in securing employment in other Government Departments.

2. The Director of Technical Education has therefore requested in his letter third read above that B.E. Degree in Production Engineering and Industrial Engineering of various Universities in Tamil Nadu be treated as an equivalent qualification to the B.E. Degree in Mechanical Engineering for the purpose of Employment in all Government Department and other organisation in the State of Tamil Nadu. The Tamil Nadu Public Service Commission in its letter fourth read above has agreed to the proposal of the Director of Technical Education.

P.T.O.

142 CS  
..2..

4. The Government after careful consideration, accept the suggestion of the Director of Technical Education, They accordingly direct that B.E. (Production Engineering) and B.E. (Industrial Engineering) awarded by the Universities in Tamil Nadu be treated as an equivalent qualification to the B.E. Degree in Mechanical Engineering for the purpose of employment in all Government Departments and other organisations in the State of Tamil Nadu.

(BY ORDER OF THE GOVERNOR)

H. B. PRANESHI  
SECRETARY TO GOVERNMENT.

Real  
Kpa

To

- All Secretaries to Government, Madras-9.
- All Heads of Department.
- ✓ The Secretary, Tamil Nadu Public Service Commission, Madras-2.
- The Director of Technical Education, Madras-25.
- Copy to: All Departments of Secretariat.
- All Sections in Personnel and Administrative Reforms Department, Madras-9.

PP  
HE  
SI

/Forwarded/by order/

S. Annamalai  
SECTION OFFICER

26/9/55

RND-A5  
BFD

தமிழ்நாடு அரசு

அரசுத் திட்டம்

பொதுப் பணிகள் - கோயம்புத்தூர் பாரதியார் பல்கலைக் கழகத்தின் இணைக்கப்பட்ட ஈரோட்டில் உள்ள சாரல மற்றும் போக்குவரத்து தொழில்நுட்ப நிலையத்தில் உட்கட்டப்படும் பொறியியல் இளவணி (தானியக்கல் பொறியியல்) (B.E. Automobile Engineering) படிப்பு பிரிவை பொதுப் பணியில் வேலை செய்துள்ள அறிக்கை - அரசு அறிவிப்பாகலாக.

அ.அ.நிலை எண். 343 டி.என்.எ. (செ.அ.அ) நாள் 13.9.1996.

பயக்கப்பட்டது:- 27 SEP 1996

1. அட்ச அட்ச நிலை எண் 441, பதியாணி மற்றும் திருவாரூர் சி.சி.சி. (ஊர்) ஊராட்சி நாள் 20.12.1993.
2. போக்குவரத்து மற்றும் கட்டிடம் எண் 3725/சி/94-2, நாள் 13.5.1994.
3. தமிழ்நாடு அரசுப் பதியாணி தேர்வாணையக் செயலாங்க அட்டவணை எண் 6190/டி.எ.டி.3/93, நாள் 6.3.96.



அறிவிப்பு:

இயக்குநர், சாரல போக்குவரத்து நிலையம், சென்னை ஊராட்சி கோயம்புத்தூர் பாரதியார் பல்கலைக் கழகத்தின் இணைக்கப்பட்ட ஈரோட்டில் உள்ள சாரல மற்றும் போக்குவரத்து தொழில்நுட்ப நிலையத்தில் அளிக்கப்படும் பொறியியல் இளவணி (தானியக்கல் பொறியியல்) B.E. (Automobile Engineering) படிப்பு பிரிவை பொதுப் பணியில் வேலை செய்துள்ள அறிக்கை எண் 3725/சி/94-2, நாள் 13.5.1994. இயக்குநரின் கோரிக்கை இத்தொடரில் மேலே குறிப்பிடப்பட்ட அட்டவணை எண் 6190/டி.எ.டி.3/93, நாள் 6.3.96 ஆகிய அட்டவணைகளின் கீழ் பரிசீலனைக்காக அளிக்கப்பட்டது. இயக்குநரின் தமிழ்நாடு அரசு பதியாணி தேர்வாணையக் குழுவின் அட்டவணை எண் 3.1.1996 ஆகிய அட்டவணை கீழ் பரிசீலனைக்காக அளிக்கப்பட்டது. இயக்குநரின் தமிழ்நாடு அரசு பதியாணி தேர்வாணையக் குழுவின் அட்டவணை எண் 3.1.1996 ஆகிய அட்டவணை கீழ் பரிசீலனைக்காக அளிக்கப்பட்டது. இயக்குநரின் தமிழ்நாடு அரசு பதியாணி தேர்வாணையக் குழுவின் அட்டவணை எண் 3.1.1996 ஆகிய அட்டவணை கீழ் பரிசீலனைக்காக அளிக்கப்பட்டது. இயக்குநரின் தமிழ்நாடு அரசு பதியாணி தேர்வாணையக் குழுவின் அட்டவணை எண் 3.1.1996 ஆகிய அட்டவணை கீழ் பரிசீலனைக்காக அளிக்கப்பட்டது.

3. பரிசீலனைக்கு இடம் அளிக்கப்படுகின்ற இயக்குநரின் வேண்டுகோளையும் மற்றும் குழுவின் பரிந்துரையும் ஏற்ற கோயம்புத்தூர், பாரதியார் பல்கலைக் கழகத்தின் இணைக்கப்பட்ட ஈரோட்டில் உள்ள சாரல மற்றும் போக்குவரத்து தொழில்நுட்ப நிலையத்தில் உட்கட்டப்படும் பொறியியல் இளவணி (தானியக்கல் பொறியியல்) B.E. (Automobile Engineering) படிப்பு பிரிவை பொதுப் பணியில் வேலை செய்துள்ள அறிக்கை எண் 3725/சி/94-2, நாள் 13.5.1994.

(இயக்குநர் ஆணைப்படி)

பி. எஸ். பாண்டியன்  
அரசு செயலாளர்.

பெயர்

அட்ச அட்ச செயலாளர், சென்னை-9  
இயக்குநர், சாரல போக்குவரத்து நிலையம், தாமடி,  
சென்னை-113

/ச.பி.பா/

12/1

பெருநகர் தெருட்சிபி

செயலர், தமிழ்நாடு அரசியல் பணியாளர் தேர்வாணையக் குழு, சென்னை-2.  
பதினாள், புராதியார் பல்சுவைக் குழுசம், கோயம்புத்தூர்,  
அனைத்து தலைமைப் பட்ட,  
மதுரை, சிறுமலை மற்றும் போக்குவரத்துத் தொழில்நுட்ப நிறுவனம்,  
கோட்டை 638316.

நகர்:  
முதலமைச்சரின் செயலர், சென்னை-9  
போக்குவரத்துத் துறை, சென்னை-9  
கல்வித் துறை, சென்னை-9  
புதியாள் மற்றும் நிர்வாகச் சீர்திருத்தத் துறையின்  
அனைத்துப் பரிசீலனை, சென்னை-9.

/அனைத்து/அனைப்பப்படுகிறது/

செயலர்  
புதிர் அனைவர்.  
17/9



ABSTRACT

Public Services - Educational Qualification - Recognition of B.E Manufacturing Engineering (Part-time) awarded by Anna University as equivalent to B.E Mechanical Engineering of Anna University for the purpose of appointment in Public purpose - Orders - Issued

Energy (B2) Department

G.O. Ms. No. 9

Dated: 28.09.2010

Read

From the Controller of Examinations and Secretary, in-charge,  
Tamil Nadu Public Service Commission, Letter No. 64/33/RND-F1/06  
dated 9.10.2007.

ORDER:

In the letter read above, the Controller of Examinations, Secretary in-charge, Tamil Nadu Public Service Commission has stated that the Chief Engineer (Personnel), Tamil Nadu Electricity Board, Chennai has requested the Commission to clarify as to whether the degree of B.E Manufacturing Engineering is equivalent to the Degree of B.E. Mechanical Engineering of Anna University for promotion purpose.

2. The Controller of Examination and Secretary, in-charge Tamil Nadu Public Service Commission has stated that the above proposal was placed before the Equivalence Committee along with the views of Experts and Institutions/Departments in its Twenty third Meeting held on 24.09.2007 and had resolved to recommend that the qualification of B.E. Manufacturing Engineering (Part time) awarded by Anna University is equivalent to that of B.E. Mechanical Engineering of the Anna University for the purpose of appointment in public services. Hence he has requested to issue necessary orders in this regard.

3. The Government after careful consideration, have decided to accept the recommendations of the Equivalence Committee and accordingly, direct that the qualification of B.E Manufacturing Engineering (Part time) awarded by Anna University as equivalent to that of B.E. Mechanical Engineering of the Anna University for the purpose of appointment in public service.



63

2:

4. Necessary amendment for Special Rules to the Tamil Nadu Engineering Service will be issued by the Higher Education Department separately. 081230

5. This order issues with the concurrence of Higher Education Department U.O. No. 1111-1/B1/10, dated 21.1.2010.

(By order of the Governor)

P.W.C. Davidar  
Secretary to Government

To  
✓ The Controller of Examination & Secretary-in-charge,  
Tamil Nadu Public Service Commission, Chennai-2  
Copy to  
The Secretary,  
Tamil Nadu Electricity Board  
Chennai,  
The Secretary to Government  
Higher Education (B) Department,  
Chennai-9  
The Personnel & Administrative Reforms Department,  
Chennai-9  
Special P.A. to Minister (Electricity)  
Chennai-9  
SC/SF

//Forwarded/By order//

Honeyap  
28/1/10  
Section Officer.



ABSTRACT

099070

Public Services – Tamil Nadu Agricultural Engineering Subordinate Service – the qualifications B.E.(Part-time) Degree B.E.(Civil and Structural Engineering) is equivalent to B.E.(Civil Engineering) and B.E (Mechanical and Production Engineering) is equivalent to B.E (Mechanical Engineering) – Orders – Issued.

AGRICULTURE (AA3) DEPARTMENT

G.O(Ms) No. 102

Date: 11.5.2010

Read

1. G.O.Ms.No.1987, Agriculture Department, dated 28.8.81.
2. G.O.Ms.No.958, Agriculture(AE.III) Department, dated 27.12.90.
3. G.O.Ms.No.582, Agriculture Department, Dated 9.11.95
4. G.O.Ms.No.428, Agriculture Department, dated 22.10.96.
5. From the Director of Technical Education, Chennai 25, Letter No.18884/Z/99, dated 6.8.99.
6. From the Registrar, Anna University, Chennai-25, Ref.No.R/01, dated 10.7.01.
7. From the Chief Engineer (Agricultural Engineering) Letter No.GEP3/50588/02 dated 5.6.06 and 6.3.2007.
8. From the Secretary, Tamil Nadu Public Service Commission Letter No.2663/RND-F1/02 dated 1.12.08.
9. From the Chief Engineer (Agricultural Engineering) Letter No.GEP3/50588/02 dated 11.12.09.

ORDER:-

In G.O.(Ms).No.958, Agriculture (AE.III) Department, dated 27.12.90, orders were issued that 2% of the cadre strength in the posts of Junior Engineer (Agricultural Engineering) and Assistant Engineer (Agricultural Engineering) put together be filled up with Assistant Soil Conservation Officer, Junior Draughting Officer and other categories of employees in the subordinate service in the Agricultural Engineering Department who have got degree in Engineering viz. B.E.(Civil) /B.E. (Mechanical) through part-time course.

2. In G.O.(Ms).No.582, Agriculture (AA.3) Department, dated 9.11.95 orders were issued for appointment to the substantive posts of Assistant Engineer (Agricultural Engineering) the proportion between direct recruitment and recruitment by transfer from the holders of the posts of Asst. Soil Conservation Officer, Junior Draughting Officer, Agricultural Engineering Foreman in Tamil Nadu Agricultural Subordinate Service shall be 24:1 with effect from 27.12.1990 till the date of issue of the order

- 3/6

(i.e. G.O.(Ms).No.582, Agriculture (AA:3) Department, dated 9.11.95) and that the Government also directed that the proportion of 24:1 ordered as above for appointment to the substantive posts of Assistant Engineer (Agricultural Engineering) by direct recruitment and by recruitment by transfer be enhanced to 91:9 with immediate effect.

3. The Chief Engineer (Agricultural Engineering) has stated that a list of persons who have acquired B.E.(part-time) was prepared wherein it was seen that certain persons have acquired B.E. (Part-time) degree in (i) Civil & Structural, (ii) Mechanical and Production and (iii) Structural. Hence, he has sent a proposal to the Government to clarify whether the persons acquiring B.E. (Part-time) degree in

- (i) Civil & Structural Engineering
- (ii) Mechanical and Production Engineering
- (iii) Structural Engineering.

may also be considered equivalent to the persons with the qualification of B.E.(Civil) or B.E. (Mechanical).

4. On consultation with the Director of Technical Education and Registrar, Anna University, Chennai have confirmed that B.E. (Part-time) degree in (i) Civil and Structural Engineering (ii) Mechanical and Production Engineering and (iii) Structural Engineering may be considered as equivalent to B.E. (Civil) and B.E. (Mechanical).

5. The Tamil Nadu Public Service Commission which was consulted has stated that the 25<sup>th</sup> Equivalence Committee has resolved to recommend as follows:-

"B.E.(Civil and Structural Engineering) is equivalent to B.E.(Civil Engineering) and B.E.(Mechanical and Production Engineering) is equivalent to B.E. (Mechanical Engineering)".

6. The Government after careful examination have decided to accept the recommendations of the Equivalence Committee and ordered that the B.E (Civil and Structural Engineering) is equivalent to B.E (Civil Engineering) and B.E (Mechanical and Production Engineering) is equivalent to B.E (Mechanical Engineering).

(BY ORDER OF THE GOVERNOR)

K. NANDA KISHORE  
AGRICULTURAL PRODUCTION COMMISSIONER  
AND SECRETARY TO GOVERNMENT

To

The Chief Engineer (Agricultural Engineering), Chennai-35.

✓ The Secretary, TNPSC, Chennai - 2.

The Director of Technical Education, Chennai-25.

The Registrar, Anna University, Chennai-25.

67

The Accountant General, Chennai – 18.  
The Accountant General, Chennai – 18 (B/N)  
The Pay and Accounts Officer, Chennai-35.(South).

**Copy to:-**

The Higher Education Department, Chennai-9.  
Personnel and Administrative Reforms Department, Chennai-9.  
Special P.A. to Hon'ble Minister for Agriculture, Chennai-9.  
Private Secretary to Agricultural Production Commissioner  
and Secretary to Government, Chennai-9.  
SF/SC.

//FORWARDED BY ORDER//

ச.ம.சுப்பிரமணியன்  
SECTION OFFICER

11/5/10





ABSTRACT



Higher Education - Equivalence of Degree - The six years integrated U.G. Level Engineering B.Tech. degree programme in Civil Engineering/Information Technology / Computer Science and Engineering / Mechanical Engineering (for Speech and Hearing Impaired Students) awarded by Kalasalingam University equivalent to B.Tech. in similar programmes offered by Anna University - Recommendation of 46<sup>th</sup> Equivalence Committee held on 29.01.2014 - Orders - Issued.

Higher Education (J2) Department

G.O.(Ms) No.41

Dated: 3.3.2014.

Vijaya, Maasi 19,  
Thiruvalluvar Aandu 2045.  
Read:

- NP 1. G.O.(Ms) No. 441, Personnel and Administrative Reforms (R) Department, dated 20.12.1993.  
P169 2. From the Secretary, Tamil Nadu Public Service Commission D.O. letter No. 500/RND-F1/2014 dated 30.1.2014.

ORDER:

In the letter second read above, the Secretary, Tamil Nadu Public Service Commission has forwarded the resolutions passed by the 46<sup>th</sup> Equivalence Committee Meeting held on 29.1.2014.

2. After careful examination, the Government direct, based on the recommendation of the 46<sup>th</sup> Equivalence Committee meeting held on 29.1.2014 that the 6 years integrated U.G Level Engineering B.Tech. degree programme in Civil Engineering/ Information Technology / Computer Science and Engineering / Mechanical Engineering (for Speech and Hearing Impaired Students) awarded by Kalasalingam University, is equivalent to B.Tech. in similar programmes offered by Anna University.

(BY ORDER OF THE GOVERNOR)

HEMANT KUMAR SINHA,  
PRINCIPAL SECRETARY TO GOVERNMENT.

To  
The Secretary, Tamil Nadu Public Service Commission, Chennai-3.  
The Vice-Chancellor, Kalasalingam University, Anand Nagar,  
Krishnankoil-626 126.

# Annexure - II A

## Mechanical and Production Engineering(Mechanical Engg)

### (MECHANICAL ENGINEERING)

#### DEGREE STANDARD

##### 1. APPLIED MECHANICS:

Statics of particles - Resolution of forces - supports and reactions - Determination of forces in member of statically determinate plane trusses by method of joints and method of section. Controls - moment of inertia, position, velocity and acceleration of particles. Newton's Second law, Equations of motion, principle of work and energy, impulse and momentum, impact of elastic bodies, friction - laws, simple machines.

##### 2. ENGINEERING THERMODYNAMICS:-

Energy - Work - heat properties - states - processes. Energy equations. Work and PV diagrams. Laws of thermodynamics Carnot cycle, reversed Carnot cycle, efficiency - COP. Specific heats - gas laws - perfect gas relationships. mole concept, molar volume, internal energy, enthalpy, molecular weight of gas mixtures. Methods of cycle analysis - tables of thermodynamic properties of air - thermal efficiency Otto cycle - diesel cycle - dual combustion cycle - comparison of cycles - problems on use of steam tables.

##### 3. INTERNAL COMBUSTION ENGINES:-

Basic engine nomenclature - engine classification - working of SI engine, CI engine, two stroke engine and four stroke engine - carburation - air fuel mixture ratio. Combustion in SI engine - ignition systems - timing - spark plugs - combustion chamber. Combustion in CI engine - ignition delay - valve timing diagram - fuel supply injection systems. Performance of SI and CI engines - factors affecting the performance characteristics. Cooling - lubrication systems, fuels used in SI and CI engines. Measurements of engine power - indicated mean effective pressure - indicated horse power - brake horse power - specific fuel consumption - thermal efficiency.

##### 4. GAS DYNAMICS AND JET PROPULSION:-

Energy equation for flow process - velocity of sound - Mach number - effect of Mach number on compressibility. Isentropic flow with variable area - Area ratio as a function of Mach Number - mass flow rate - flow through nozzles - flow through diffusers. Solution of Fanno flow equation - isothermal flow with friction. Flow with normal shockwaves - governing equations. Prandtl - Meyer equation. Aircraft propulsion - jet engines - energy flow - thrust power and propulsive efficiency - performance of jet engine. Rocket engines - performance - solid and liquid propellant rockets. Comparison of various propulsion systems.

##### 5. REFRIGERATION AND AIR CONDITIONING:-

Principles of refrigeration - mechanism of producing cold - types of refrigerations - refrigerating effect and unit of refrigeration - coefficient of performance of refrigerator. Air refrigeration systems - reversed Carnot cycle - Bell Coleman cycle. Simple vapour compression system. Advanced vapour compression systems - T.S Diagram - p-h chart - dry and wet compression - under cooling. Vapour absorption systems. Refrigerants. Refrigeration applications. Air conditioning - Factors in air conditioning - simple heating and cooling - dehumidification - humidification.

##### 6. FLUID MECHANICS:-

Classification of fluids - fluid properties - Ideal fluid flow - Rotational - irrotational flow - Bernoulli's equation - Flow through pipes - pipes in series - pipes in parallel - Darcy's equation - viscous fluid flow - Navier - Stokes equation - Laminar and Turbulent flow - Reynold's number - Compressible flow of perfect gas - speed of sound wave - concept of Mach number - Hydraulic

# **Mechanical and Production Engineering(Mechanical Engg)**

Jump.

## **7. TURBOMACHINERY:-**

Definition and classification of turbo machines, equation for energy transfer. Centrifugal fans, blowers and Compressors. Axial flow fans and compressors. Axial turbine stages. Free and forced vortex flow. Centrifugal pumps - workdone - head - specific energy - priming - performance of multistage pumps. Hydraulic turbines - different types - governing, performance - selection of turbines. Gravitation - method of preventing - hydraulic coupling - torque convertors.

## **8. HEAT AND MASS TRANSFER:-**

Modes of heat transfer, one dimensional heat conduction, resistance concept, unsteady state heat conduction. Fins, free and forced convection. Thermal boundary layer concept. D.B. equations and other correlations, radiation, black and gray bodies, shape factor design of heat exchangers. NTU method. Analogy of mass, Heat and Momentum transfers, mass transfer equipments.

## **9. POWER PLANT ENGINEERING:-**

Sources of energy - conventional and non - conventional Location of steam power plant, diesel power plant and nuclear power plants - layout. Disposal of waste, safety and hazards. Hydroelectric power plants, Gas power plants - environmental problems. Power plant economics, cost benefit analysis - future power plants wind, tidal, solar energy - problems and prospects. Geothermal energy, fuel cells, thermionic and thermo electric converters etc.

## **10. INSTRUMENTATION AND CONTROL:-**

Elements of measurement systems. Range, span, sensitivity, accuracy, precision and repeatability of instrument. Errors in measurement system. Transducers for measurement of pressure, manometers, temperature measuring instruments, measurement of speed, strain gauge basics, force measurement using load cells and electromechanical methods. Dynamometers for power measurement, flow meters, rotameters, using velocity process, hot wire anemometer, accelerometers. Open and closed loop control systems. Transfer function, Hydraulic and Pneumatic control systems, Different types of controls like, two way proportional, differential and integral control.

## **PAPER -II**

### **1. STRENGTH OF MATERIALS:-**

Direct stress and strain - elasticity - Hook's law - Poisson's ratio - bulk modulus. Shear stress-modulus of rigidity. Analysis of stress and strain compound stress. Strain energy, resilience and strength theories. Bending moment and shearing forces. Bending stresses in beams, shearing stresses in beams, deflection of beam, fixed and continuous beams. Combined direct and bending stresses. Columns and struts, torsion of shafts, springs, thin and thick cylindrical and spherical shells. Riveted joints.

### **2 THEORY OF MACHINES - I:-**

Kinematics of mechanisms - link pair - inversions of mechanism four bar chain - slider crank mechanisms. Motion and inertia - velocity - acceleration - force - mass - centrifugal and centripetal force - mass moment of inertia - velocity in mechanism - velocity polygons - acceleration in mechanism - lower pair - cams - gyroscope.

### **3. THEORY OF MACHINES - II:-**

Friction - laws of solid friction - wedge - screws - threads collar - pivot - clutch - bearing. Belt, rope and chain drive - toothed gears - gear trains - inertia force analysis and fly wheel governors - stability - friction and insensitiveness. Balancing of several masses in different planes. Mechanical vibrations - force vibrations - damping.

### **4. DESIGN OF MACHINE ELEMENTS:-**

Design of riveted and welded joints - Design of detachable joints - Bolted joints cotter Joint -



## **Mechanical and Production Engineering(Mechanical Engg)**

knuckle joint - Design of crank shaft and connecting rod - Flange coupling - Helical and leaf springs - Fly wheel - Design of journal and thrust bearings.

### **5. DESIGN OF TRANSMISSION ELEMENTS:-**

Selection of flat and vee belts - design of cone pulley belt drive - design of spur gears, helical gears and bevel gears - Design of worm and wheel pair for power transmission - Design of single and two stage speed reducers.

### **6. PRODUCTION PROCESSES:-**

Classification of machining processes, metal cutting tools, tool materials, tool geometry, Lathe: mechanisms for feed and spindle drive, work holding device, types of operation, Drilling machines, shaper, slotter and milling machines: drives and types of work done, milling machines: drives for spindle speed and feed. Workholding devices indexing, milling machine operations.

### **7. MACHINING PROCESSES:-**

Grinding machines: Abrasives, grain structure and designation of grinding wheels, various types of grinding, work holding devices. Fine finishing process: honing, buffing, metal spraying and electroplating.

Gear and gear manufacturing: Gear milling, shaping,, hobbing, gear finishing: gear shaving, grinding, lapping and gear honing. Special Machining process: Electro discharge machining, Electro Chemical grinding, electron beam and laser beam machining abrasive jet machining. NC & GNC machine operations, Flexible manufacturing systems automated guided vehicles, FMS layout, material handling system.

### **8. METROLOGY AND QUALITY CONTROL:-**

Precision instruments: Vernier, micrometer, slip gauges, sine bars, comparators. Inter changeability, limit gauges. Profile projector, tool maker's microscope, screw thread projector, measurement of surface finish, Testing geometric accuracy of machine tools, Errors in threadpitch measurement, gear tooth errors statistical quality control concept, use of control charts, Acceptance sampling. economic aspects of quality control.

### **9. INDUSTRIAL ENGINEERING:-**

Work study - techniques - Method study - objectives - basic procedure - work measurement - objectives - basic procedure - production planning and control - machine loading and scheduling - product sequencing - inventory control - E O Q - quantity discounts - ABC Analysis - Plant layout - product and process layout - material handling systems - simplex method - Transportation model - Assignment model.

### **10. INDUSTRIAL MANAGEMENT:-**

The basic of management theory and practice - planning - The nature and purpose of Planning - Decision making - Organising - Nature and purpose of organising - staffing - Nature and purpose of staffing - Leading - Motivation - Leadership - controlling - control techniques - Ensuring effective managing.

# Annexure - II A

## **AUTOMOBILE ENGINEERING DEGREE STANDARD**

### UNIT I

History of automobiles - Classification of automobiles - Engine and cylinder arrangements - Torque Distribution and Firing Order - Chassis layout - arrangements.

### UNIT II

Engine construction - Cylinder - Cylinder head - Crank shaft - Cam shaft - Cylinder liners - Piston - Piston rings - valves and valve operating mechanism inlet and exhaust manifolds - design consideration - materials of construction.

### UNIT III

Automotive fuels - calorific value - Octane number, Cetane number - fuel transfer devices - Carburetors - Solex - Zenith, carburetor types - petrol injection system - fuel saving methods, Alternate fuels for Automobiles.

### UNIT IV

Diesel injection systems - air, airless types - fuel injection pumps - inline and rotary pumps - nozzles - different types - diesel filters - diesel pump governors - mechanical and pneumatic types.

### UNIT V

Engine cooling - air, water cooling arrangements - water pump - radiator - cooling fan - thermostat - different types - anti-freezing compounds.

### UNIT VI

Engine lubrication - properties of lubricating oils - lubrication systems - petrol, wet sump, dry sump systems - lubrication pumps - gear and vane types - Lub oil filters.

### UNIT VII

Suspension system - front and rear axle suspensions - independent suspension - stub axle - rear axle types - springs - coil leaf, plastic springs - torsion bar - shock absorber - hydraulic, gas filled types.

### UNIT VIII

Battery - construction, working of lead acid battery - battery charging - maintenance free battery - battery rating - battery testing and maintenance.

### UNIT IX

Ignition system - coil, magneto ignition systems - electronic ignition systems - components - spark plugs - heat range - ignition timing.

### UNIT X

Troubleshooting and service procedures for engine overhauling and tuneup - servicing of suspension, engine cooling and lubrication systems - tools and equipments required for repairs.

## PAPER - II

### UNIT I

Clutches - types - single and multiple plates - diaphragm clutch - centrifugal clutch - Electromagnetic clutch - overrunning clutch - fluid coupling - torque converters - clutch linkage - mechanical and hydraulic.

### UNIT II

Gear box - need, speed selection - sliding mesh, constant mesh, synchro mesh types - over drives gear shift mechanisms - epicyclic and automatic transmission.

### UNIT III

Transmission - universal joint - constant velocity joint - propeller shaft - slip joint - hotchkiss drive - torque tube drive - differential non slip limited slip differential.

### UNIT IV

Steering system - Principles of steering - Ackermann steering - steering linkage - steering geometry - toe in, toe out, camber, caster angles - kingpin inclination - wheel alignment - steering gear box - worm and sector, recirculating ball rack and pinion types power steering.

### UNIT V

Brakes - need - mechanical, hydraulic vacuum, pneumatic brakes - Drum, disc brakes - their relative merits - power brake - Brake components, Master cylinder, wheel cylinder - brake actuating linkages - brake adjustment - common faults and their remedies.

### UNIT VI

Wheel and tyres - types - specifications - construction details - materials of construction - tyre wear and causes - wheel types - relative merits - wheel balancing - wheel balancing equipments.

### UNIT VII

Generator - types - alternators - relative merits - principles of operation of cutout and regulators - starter motors - Bendix drive - solenoid drive - common faults and their remedies.

### UNIT VIII

Lighting and Electrical accessories - automobile lighting circuits - panel board instruments - automobile air conditioning - power windows - central locking systems.

### UNIT IX

Trouble shooting and service procedures for clutch, gearbox, crown and brakes - service station equipments - organisation and management of service stations.

### UNIT X

Automobile Law - motor vehicles act - Registration of vehicles - driving licence - control of traffic traffic signs - various insurance policies - pollution and its control, regulations.

## ANNEXURE - II B

### ALL TECHNICAL POST MAIN EXAMINATION

#### General Studies

#### Degree / P.G Degree Standard

#### Topics for Objective Type

#### **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

**Chemistry** 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**

**History**--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

**Science**-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 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-VI. 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-VII. APTITUDE & MENTAL ABILITY TESTS

Conversion 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-Behavioral 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-

....