TAMIL NADU PUBLIC SERVICE COMMISSION

NOTIFICATION NO: 09/2017   **DATED: 15.03.2017**

Applications are invited only <u>through online mode from candidates</u> up to 13.04.2017 for direct recruitment for the post of **Assistant Director of Industries and Commerce (Industrial Co-operatives)**

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.

Name of the Post and Code No	Name of the Service and Code No.	No. of vacancies	Scale of Pay
Assistant Director of Industries and Commerce (Industrial Co-operatives) (Code No.1874)	Tamil Nadu Industries Service. (Code No.043)	4	Rs.15,600-39,100/- + Grade Pay Rs.5400/- (PB-3)

2. DISTRIBUTION OF VACANCIES:-

GT(W)	BC(G)	MBC/DC(W)	SC(G)	Total
1	1	1	1	4

<u>Abbreviation</u>: W- Women

3. IMPORTANT DATES AND TIME:-

A	Date of Notification	15.03.2017	
B	Last date for submission of application through online	13.04.2017	
C	Last date for payment of Examination Fee through Bank (State Bank of India / Indian Bank)	17.04.2017	
D	<u>Date of Written Examination:</u> Paper -I Paper – II	 16.07.2017 FN 16.07.2017 AN	 10.00 AM to 1.00 PM 2.30 PM to 4.30 PM

4. FEES:-

a)	**Registration Fee** For One Time Registration (Revised with effect from 01.03.2017 vide G.O.(Ms).No.32, Personnel and Administrative Reforms(M) Department, dated 01.03.2017) Note: Applicants who have already registered in One Time Registration system paying Rs.50/- before 01.03.2017 and those who have registered for One-Time Registration on or after 01.03.2017 by paying Rs.150/- are exempted from paying the registration fee for this recruitment.	Rs.150/-
b)	**Written Examination Fee** 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
(i) Scheduled Castes / Scheduled Caste (Arunthathiyars), Scheduled Tribes	Full Exemption	--
(ii) Differently Abled Persons, Destitute Widow of all communities	Full Exemption	(i) For Disabled persons, the disability should be not less than 40%. (ii) For DWs, the DW certificate should have been obtained from the RDO / Sub Collector
(iii) Most Backward Class / Denotified Communities, Backward Classes (Other than Muslim) and BCM	Those who have not availed three free chances so far in any of the previous recruitment may avail exemption from payment of examination fee.	Should not have availed three free chances in any of the previous recruitment
(iv) Ex-Servicemen	Those who have not availed two free chances so far in any of the previous recruitment may avail exemption from payment of examination fee.	(i) Should not have availed two free chances in any of the previous recruitment. (ii) Fee concession will not apply to those who have already been recruited to any class or service or category.

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 a free chance availed.

ii. Failure to pay the prescribed fee along with the application in-time will be liable for rejection of application.

iii. **If the fee concession claimed in the application exceeds the admissible limits announced above, the application will be rejected.**

5. <u>QUALIFICATIONS</u>: -

(A) <u>AGE LIMIT</u> (as on 01.07.2017)

Sl. No.	Category of Candidates	Minimum Age (should have completed)	Maximum Age
1	"Others" [i.e., Applicants not belonging to SCs, SC(A)s, STs, MBCs/DCs,BCs (OBCM) and BCMs	18 years	30 Years (should not have completed)
2	SCs, SC(A)s, STs, MBCs/DCs, BCs (OBCM), BCMs and DWs of all Castes	18 years	No Maximum Age Limit

<u>Note:</u>

Applicants not belonging to SCs, SC(A)s, STs, MBC/DCs, BCs (OBCM) and BCMs who have put in five years and more of service in the State / Central Government are not eligible to apply, even though they are within the age limit.

<u>AGE CONCESSION</u>

(i) <u>For Differently Abled Persons:</u>

Differently Abled Persons are eligible for age concession upto 10 years over and above the maximum age limit prescribed above.

(ii) <u>For Ex-servicemen</u>

(a) No maximum age limit for the applicants who belong to SC, SC (A), ST, MBC/DC, BC (OBCM) and BCM.

(b) The maximum age limit is 48 years (should not have completed) 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-Serviceman applicants those who have already been recruited to any class or service or category.

(B) EDUCATIONAL QUALIFICATION: (as on 15.03.2017 (i.e. the date of Notification))

Applicants should possess the following or its equivalent qualification awarded by an University (or) Institution recognised by the University Grants Commission on the date of this notification:-

A Master's degree in Commerce with Co-operation as a subject
(Or)

A Master's Degree in Economics
(Or)

A Master's Degree in Mathematics
(Or)

A Master's Degree in Statistics
(Or)

A Master's Degree in Co-operation
(Or)

M.A Degree in Co-operative Management awarded by
Ghandhigram Rural Institute (Deemed University)
(Or)

M.Com Degree without Co-operation as a subject awarded by
Bharathidasan or Annamalai University
(Or)

A Diploma of Associate members of the Institute of Chartered
Accountants
(Or)

Post Graduate Diploma in Agricultural Economics and
Co-operation awarded by the National Council for
Rural Higher Education.

Note:

(i) The qualification prescribed for this post should have been obtained by passing the required qualification in the order of studies, viz., 10th + HSC or its equivalent + Bachelor's degree / PG Degree / Diploma / PG Diploma as the case may be.

(ii) The qualifications ordered equivalent to the prescribed qualification are indicated in Annexure-I to this notification. (Refer also to the disclaimer annexed to the notification.)

(For further details refer para. 10 of the 'Instructions to Applicants')

C. CERTIFICATE OF PHYSICAL FITNESS:-

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

Standard of Vision Prescribed	Form of Certificate of Physical Fitness
Standard – III or better	Form prescribed for Executive Posts

Applicants with defective vision should produce eye fitness certificate from a qualified eye specialist when called for.

D. Knowledge of Tamil:-

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

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

6. GENERAL INFORMATIONS:-

A. The rule of reservation of appointments is applicable to the post.

B. In G.O.(Ms).No. 145, Personnel and Administrative Reforms(S) Department, dated30.09.2010 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 examination in Tamil language alone will not qualify for claiming this preference). 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 candidates 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 'www.tnpsc.gov.in' which shall be obtained from the Head of the Institution when called for by the Commission. The Degree in Arts or Science or Commerce or professional degree should have been studied in Tamil Medium. However, turns earmarked for PSTM does not fall within the turns utilised for this recruitment.

(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 finalization of selection.

D. The selection for appointment to the above said post is 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. Reservation of appointment to Differently Abled Persons, Destitute Widows and Ex-Servicemen will not apply to this recruitment.

F. **In G.O.Ms.No.13, Welfare of Differently Abled Persons (DAP 3.2) Department, dated 2.03.2016 the post has not been identified as suitable for Differently Abled person**. Hence, reservation for Differently Abled persons is not applicable for this recruitment. However, they can apply if they satisfy the Physical Standards / norms prescribed in the notification.

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. However, turns earmarked for SC Arunthathiyars does not fall within the turns utilized for this recruitment.

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.

K. Correct and True information regarding arrest, convictions / debarment / disqualification by any recruiting agency, criminal or any disciplinary proceedings initiated / pending 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, 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 in such cases must be produced at the stage / time of Certificate Verification without fail.

L. **Incomplete applications and applications containing false claims or incorrect particulars relating to category of reservation / other basic qualification / eligibility wise / age / communal categories / educational qualification / physical qualification and other basic eligibility criteria will be liable for rejection.**

M. **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 forms.**

7. SCHEME FOR WRITTEN EXAMINATION (OBJECTIVE TYPE) (OMR METHOD) AND ORAL TEST:-

Subject	Duration	Maximum Marks	Minimum Qualifying Marks for selection	
			SCs, SC(A)s, STs, MBCs/ DCs, BCs (OBCM) and BCM	Others
PAPER – I (Objective Type) (PG Degree Standard) (200 items) (Any one of the following relevant subjects) (i) Commerce (Code No. 252) (ii) Economics (Code No. 249) (iii) Mathematics (Code No. 250) (iv) Statistics (Code No. 251) (v) Co-operation (Code No. 253)	3 Hours	300	171	228
PAPER – II General Studies (PG Degree Standard) – 100 items (General Studies - 75 items Aptitude & Mental Ability Test - 25 items) (SSLC Standard)	2 Hours	200		
Interview & Record		70		
Total		**570**		

The applicants who have not appeared for any of the papers in the Written Examination or for Oral Test will not be considered for further selection process even if they secure the minimum qualifying marks for selection.

Note:

1. Candidate should appear for the examination in the subject in which they acquired the qualification.
2. The candidates with M.A degree in Co-operative Management should appear for Co-operation Subject. The candidates with Diploma in Associate Members of the Institute of Chartered Accountants should appear for Commerce subject. The candidates with PG Diploma in Agricultural Economics and Co-operation should appear for either any one of the subjects Viz., Economics or Co-operation.
3. The question papers will be set in English and Tamil.
4. The Syllabi for the Written Examination is available in Annexure II of the notification and also available at the Commission's website www.tnpsc.gov.in.
5. Refer para 22 of "Instructions to Applicants" in regard to instructions to be followed while appearing for competitive examinations conducted by the Commission.

8. CENTRE FOR EXAMINATION AND CODE NUMBER:-

Written Examination will be held at the following Centres.

Sl.No	Name of the Centre	Centre Code
1.	Chennai	0100
2.	Coimbatore	0200
3.	Madurai	1000

Note:

(i) Candidates should choose any one of the above centres for writing the examination.

(ii) Request for change of venue will not be complied with. (For further details refer Instruction to Applicants)

(iii) The Commission reserves the right to increase / decrease the number of Examination Centre and to re-allot the candidates.

(iv) Applicants should appear for the Written Examination / Certificate verification / Oral Test at their own expenses.

9. MODE OF PAYMENT OF EXAMINIATION FEE:-

- Examination fee Rs.200/- (Rupees Two Hundred only) is payable online through Net banking / Credit card / Debit card or it can be paid at SBI / at Indian Bank within 2 days on submission of application.

- Applicants have to register their basic particulars through One -Time Registration which is mandatory on payment of Rs.150/- 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 paying Rs.50/- before 01.03.2017 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 fees as per eligibility criteria.

- **Offline mode of payment in the form of Demand Draft / Postal Order etc., will not be accepted and the applications forwarded with such modes of payment will be summarily rejected.**

- Those who have registered in the **One -Time Registration** system, and paid the registration fee of Rs.150/- and received the registration ID **need not pay** the Registration fee i.e., Rs.150/- and it is enough to pay the examination fee alone.

- Applicants who have made One-Time Registration must apply for the notified posts. One – Time Registration is only to avail exemption for Registration fee for a period of 5 years from the date of registration.

  (For further details regarding the Examination fee concessions refer para 12 of the 'Instructions to Applicants').

10. <u>PROCEDURE OF SELECTION:-</u>

The selection will be made in two successive stages, viz (i) Written Examination and (ii) an Oral Test in the form of an Interview.

(For further details refer Para 23(b) of the 'Instructions to applicants')

11. <u>NO OBJECTION CERTIFICATE / AND INFORMATION TO THE EMPLOYER:-</u>

For details refer para 15 (g) of Commission's 'Instructions to Applicants'. - Any violation of this instruction will be liable for / end in rejection of application and forfeit his/her candidature. (Para 15(g) of the Instructions to Applicants shall be read as NOC and information to the employer).

12. <u>CONCESSIONS</u>:-

   i. Concessions in the matter of age and/or fees allowed to SCs, SC(A)s, STs, MBCs/DCs, BCs(OBCM), BCMs, 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 has to produce evidence for such claim when called for, otherwise his / her application will be liable for rejection.

   <u>Note:</u>

   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 (G.O.Ms.No.89, Personnel and Administrative Reform(S) Department, dated 12.08.2015).

13. <u>HOW TO APPLY:-</u>

   1. Applicants should apply only through online mode in the Commission's Websites www.tnpsc.gov.in/www.tnpscexams.net/www.tnpscexams.in

   2. One Time Registration (OTR) and applicant Dashboard are mandatory before applying for any post. One Time Registration is valid for 5 years from the date of registration.

   3. For applying in One Time Registration, the applicants should have scanned image of their photograph and signature in CD/DVD/Pen Drive to upload the photo 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 applicant 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 wishes to apply for any post shall click "Apply" against the post Notified in the Commission's Website and use the same USER ID and PASSWORD given for ONE TIME REGISTRATION.

7. Select the name of the post or service for which you wish 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 Candidate, 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 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.**

14. **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 satisfying of the eligibility conditions**. Mere issue of memo of admission to the applicant will not imply that his/her candidature has been fully cleared by the Commission.

   b) The Hall Tickets for eligible applicants will be made available in the Commission's Website **www.tnpsc.gov.in** or www.tnpscexams.net or www.tnpscexams.in for downloading the same by applicants. No Hall Tickets will be sent by post. So the applicants should watch TNPSC website before the scheduled date of examination. The Applicants must comply with each and every instruction given in the Hall Ticket.

   c) **Grievance Redressal Cell for guidance of applicants:-** In case of any guidance /information / clarification of their 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.

d) **Mobile Phones and other Articles Banned:**

    i.   Applicants are not allowed to bring Cellular Phone, 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 applicants such as Watch or Ring etc., to the examination hall / room on the date of examination.

    ii.   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 Instructions to Applicants).

    iii.   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). No colour pen or Pencil must be used.

    iv.   **Applicants are advised in their own interest not to bring any of the banned items including Mobile Phones to the venue of the examination, as arrangements for safekeeping cannot be assured.**

e) 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 recruitment will be liable for rejection / cancellation by the Commission. (For further details refer Instructions to Applicants).

f) If any of their claims is found to be incorrect, it will lead to rejection / debarment.

g) **Unfair means strictly prohibited:** No applicants shall copy from the papers of any other candidate 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 Instructions to Applicants).

h) **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 Instructions to Applicants).

i) For violations of " Instruction to Applicants" in any manner suitable penalty will be imposed as per the Instructions to applicants or as deemed fit by the Commission.

The Online Application can be submitted upto 13.04.2017 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 www.tnpsc.gov.in)

Secretary

Annexure-I
G.Os / Government letters relating to equivalence of qualification for the post of Assistant Director of Industries and Commerce (Industrial Co-operatives)

Sl.No	Degree	Equivalence Degree	G.O
1.	M.Com	M.Com., Post Graduate Degree under open University System of the Madurai Kamaraj University recognized as equivalent to M.Com.,	G.O.(Ms) No.64, Personnel and Administrative Reforms(R) Department, dated 02.02.1996.
		Master of Labour Management awarded by Madras University as equivalent to M.Com.,	G.O.Ms.No.70, Personnel and Administrative Reforms(R) Department, dated 19.04.1999.
		M.Com., Multi branch degree courses awarded by Bharathiar University as equivalent to M.Com M.Com., with Computer Applications, M.Com., (Information Technology) M.Com., (Finance and Cost Accounting) M.Com (finance and Control)	G.O.(1D) No.29, Higher Education (K2) Department, dated 04.03.2013
		1. M.Com., (Financial Management), M.Com., (Banking Management), 2. M.Com., (Computer Application) awarded by Bharathidasan university as equivalent to M.Com.	G.O.(Ms.) No.30, Higher Education (K2) Department, dated 04.03.2013.
		1. M.Com (computer Application) equivalent to M.Com 2. M.Com., Computer Application equivalent to M.Com., / Periyar University 3. M.Com., (Corporate Finance) equivalent to M.com / Bharthidasan University 4. M.Sc., Finance and Computer Applications equivalent to M.Com., M.I.B equivalent to M.Com., Bharathiar University.	G.O.(Ms)No.72, Higher Education (K2) Department, dated 30.04.2013.
		The following Programmes awarded by University of Madras as equivalent to M.Com., 1. M.Com (Trade &	G.O.(1D) No.270, Higher Education (K2) Department, dated 31.12.2013

		Services) 2. M.Com (Business Systems) 3. M.Com (Trade and Development) 4. M.Com (International Business) 5. M.Com (International Business and Finance) 6. M.Com (Accounting Finance)	
		The following programmes awarded by Annamalai University those who have passed their Bachelor degree in corresponding subjects under 10+2+3 or 11+1+3 as to whether equivalent M.Com degree 1. M.Com (Entrepreneurship) 2. M.com (Banking and Insurance Management – English and Tamil Medium) 3. M.Com (Computer Applications) 4. M.Com (Accounting and Finance) 5. M.Com (Education Management) 6. M.Com (Marketing) M.Com (Co-operative Management – English & Tamil Medium)	G.O.(Ms) No.27, Higher Education (k2) Department, dated 13.02.2014.

		1. M.Com Finance awarded by Avinashilingam Institute for Home Science and Higher Education for Women Coimbatore is equivalent to M.Com (General) 2. M.Com (International Banking) on-campus programme awarded by Annamalai Univeristy is equivalent to M.Com., (General) 3. M.Com (Computer Application) awarded by Arulmigu Kalasalingam College of Arts & Science, Krishnan Koil affiliated to Madurai Kamaraj University is equal to M.Com	G.O.(Ms) No.112, Higher Education (k2) Department, dated 18.07.2014.
		1. M.Com with Computer Application awarded by Alagappa University as equivalent to M.Com. 2. M.com (Finance) awarded by Madurai Kamaraj University as equivalent to M.Com.	G.O.(Ms)No.72, Higher Education (K2) Department, dated 20.04.2015.
		1. M.Com., (Finance & Accounting) awarded by Bharathiar University as equivalent to M.Com., 2. M.Com (Finance & Computer Application) awarded by Bharathiar University as equivalent to M.com.,	G.O.(Ms) No.37, Higher Education (K2) Department, dated 17.02.2016.
2.	Master Degree in Economics	M.A. Applied Economics (Five years Integrated Course) awarded by Annamalai University be considered as equivalent to M.A. (Economics)	G.O.(1D) No.268, Higher Education (H1) Department, dated 20.09.2012

		1. M.A., Business Economics equivalent to M.A. Economics / Annamalai University / Bharathiar University / Gandhigram University 2. M.A Applied Economics to M.A (Economics) / Annamalai University 3. M.Sc., (Mathematical Economics) Equivalent to M.A. (Economics)	G.O.(Ms)No.72, Higher Education (K2) Department, dated 30.04.2013
		M.Sc., Economics 5 years Integrated course awarded by Avinashilingam Institute for Home Science and Higher Education for Women, Deemed University as equivalent M.A. Economics	G.O.(Ms)No.117, Higher Education (K2) Department, dated 02.07.2013.
		M.A. Applied Economics awarded by Bharathidasan University is equivalent to M.A. Economics	G.O.(Ms) No.27, Higher Education (K2) Department, dated 13.02.2014.
		1. M.A. Indian Economics awarded by University of Madras is equivalent to M.A. Economics. 2. M.A., Business Economics offered by Ethiraj College for Women, Chennai affiliated to University of Madras is equivalent to M.A., Economics	G.O.(Ms) No.116, Higher Education (K2) Department, dated 22.07.2014.
		M.S. Applied Econometrics awarded by Pondicherry University as equivalent to M.A. Economics.	G.O.(Ms) No.2, Higher Education (k2) Department, dated 05.01.2016.
		MBE (Master of Business Economics) awarded by Bharathiar University as equivalent to M.A. (Economics)	G.O.(Ms) No.37, Higher Education (k2) Department, dated 17.02.2016.
3.	Master Degree in Mathematics	M.Sc., (Applied Mathematics) awarded by Anna University as equivalent to M.Sc., Mathematics.	G.O.(Ms) No.80, Personnel and Administrative Reforms(R) Department, dated 06.02.1996.
		M.Sc., Mathematics with Computer Application (CBCS)	G.O.(1D) No.260, Higher Education (H1)

		and five year Integrated M.Sc., Mathematics with Computer Application awarded by Annamalai University as equivalent to M.Sc., Matahematics.	Department, dated 15.09.2012
		1. M.Sc., Applied Mathematics awarded by Bharathidasan University as equivalent to M.Sc., Mathematics. 2. M.Sc., Applicable Mathematics and Computer Science awarded by Bharathidasan University as equivalent to M.Sc., Mathematics.	G.O.(Ms)No.58, Higher Education (K2) Department, dated 15.04.2013.
		1. M.Sc., Maths (Computer Application) equivalent to M.Sc., Maths 2. M.Sc., Maths (Computer Application) – equivalent to M.Sc., Maths / Periyar University 3. M.Sc., Mathematics with C.A. equivalent to M.Sc., Mathematics / Gnadhigram University 4. M.Sc., Tech. (Industrial Mathematics with CA) equivalent to M.Sc., Mathematics / Gandhigram University	G.O.(Ms)No.72, Higher Education (K2) Department, dated 30.04.2013.
		M.Sc., Statistics awarded by Madras University as equivalent to M.Sc., Mathematics	G.O.(Ms)No.190, Higher Education (K2) Department, dated 27.09.2013.
		1. M.Sc., Applied Mathematics (Operation Research) awarded by Bharathidasan University as equivalent to M.Sc., Mathematics. 2. M.Sc., Mathematics (Applicable Mathematics) awarded by Periyar University as equivalent to M.Sc., Mathematics.	G.O.(Ms) No.212, Higher Education (k2) Department, dated 17.12.2014.

4.	Master degree in Statistics	1. M.Sc., Statistics with computer Application awarded by Manonmaniam Sundaranar University / Periyar University / Bharathiar University is equivalent to M.S., Statistics. 2. M.Sc., Statistics with Computer Application (5 years Integrated Programme) awarded by Annamalai University is equivalent to 3 years UG in Statistics and 2 years PG in statistics.	G.O.(Ms) No.116, Higher Education (k2) Department, dated 22.07.2014.
5.	Master Degree in Co-operation	1. M.A. Co-operation be considered as equivalent to M.A. co-operation Management M.Com Co-operative Management be considered as equivalent M.A. Co-operation	G.O.Ms.No.72, Finance (Co-operative Audit) Department, dated 12.03.2013.

<u>DISCLAIMER</u>

"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 upload the equivalence of qualification in the form of Government orders, 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

<u>ANNEXURE - II</u>

<u>SYLLABUS</u> - PAPER - I

TAMIL NADU PUBLIC SERVICE COMMISSION

<u>ECONOMICS</u> (POST GRADUATE DEGREE STANDARD)

CODE NO:249

UNIT I

Importance and Scope of Economics - Micro and Macro Economics — Economic Statics and dynamics - Interdependence- Theory of consumer behaviour - Indifference curve analysis - Revealed Preference Theory - Elasticity of demand and its applications — Consumer's surplus.

UNIT II

Theory of production and cost - production function - optimum factor combination - Linear and Homogenous production function - Cobb - Douglas - CES production Function - Translog (TL) production function - Break even analysis.- Value - Price determination under different market structures — Producer's Surplus.

UNIT III

General Equilibrium analysis — Nash equilibrium - Welfare Economics — Welfare Criteria: Bergon's social welfare function - Pareto criterion and optimality conditions- Kaldor - Hicks Welfare Criterion - Scitovsky's Paradox — Arrow's impossibility theorem — Rawl's theory of social justice - Input - output analysis — Information (asymmetric).

UNIT IV

National income - Measurement - difficulties - Sectoral shares — Circular flow of income —Classical Theory of income and employment - Keynesian Analysis - Theory of aggregate demand and aggregate supply — IS - LM model - Absolute income hypothesis - Relative income hypothesis - Permanent income hypothesis — Multiplier – Accelerator – Business cycles.

UNIT V

Economic Systems - Market economy - Command economy - Mixed economy - Approaches to economic development - Adamsmith - Ricardo - Malthus - Schumpeter - Karl Marx - Gandhiji - J.C.Kumarappa - Periyar — Ambedkar Ideas.

UNIT VI

Money - Friedman's theory - Don Patikin's theory – Tobin's theory – Baumol's model - Inflation - Deflation - Causes - effects - measures to control - Banking - Importance - Role and functions of Commercial Banks and Central Bank – Money Supply in India.

UNIT VII

Composition and direction of foreign trade - Importance of foreign trade and economic development - Balance of payments - Terms of trade – Foreign direct investment – Exchange rate - EXIM policy - GATT - WTO - Dunkel Draft - TRIPS - TRIMS – FEMA -UNCTAD - International Financial Institutions - IBRD and IMF - New International Economic Order.

UNIT VIII

Fiscal Function - Direct and Indirect taxes - Public expenditure - Public borrowing - techniques - Debt management Fiscal Federalism - Fiscal policy – Compensatory and functional finance - Types of budget - Budget formulation - Centre and State Financial Relations in India.

UNIT IX

Economic Development - leading issues in India and Tamil Nadu - Economic and non - economic factors - Agriculture - Prospects and problems – Trends in agricultural productivity – Green revolution - Land reform and effects - Rural Industrialization - Industry - Role of private and public Sectors - Industrial labour - Labour legislation - Social security measures.

UNIT X

Planning – Types of Planning - National and state objectives and achievements – Models adopted in Indian plans - New Economic Policy – Liberalization, Privatisation and Globalisation - Multi - National Corporations – Sustainable Development(Transition from MDGs to SDGs).

TAMIL NADU PUBLIC SERVICE COMMISSION

MATHEMATICS (POST GRADUATE DEGREE STANDARD)

CODE NO:250

I. ALGEBRA

Group - examples - subgroup - Normal subgroups - homomorphisms - Isomophism - Cayley's theorem - Cauchy's theorem - Sylow's theorem - Finite ablian groups – Rings - Euclidean rings - Polynomial rings - Polynomial over the rational field - Polynomials over Commutative rings - Division rings - Frobenius theorem. Field: Finite fields - Wedderburn's theorem, Extension Fields - Roots of Polynomials - Elements of Galois theory - Solvability of radicals - Linear Transformations: Canonical forms - Nilpotent transformations

II REAL ANALYSIS

Limit, Continuity, types of discontinuities, infinite limits, function of bounded variation, elements of metric spaces. Reimann Integral - Fundamental theorem of calculus - mean value theorem. Reimann - Stieltjes Integral, Infinite series and infinite products, sequences of functions, Fourier series and Fourier Integrals. Outer measure, measurable sets and Lebesque measures, measurable functions. Littlewoods three principles. Lebesque Integral of bounded function over a set of finite measure. Integration of a non negative function. General Lebesque Integral.

III COMPLEX ANALYSIS

Local properties of analytic functions - Removable singularities Taylor's theorem - Zeros and poles, local mapping - maximum principle - Harmonic functions - Definitions & basic properties - mean value property - Poission's formula - Schwarz's theorem - reflection principle - power series expansions - Weierstrassis theorem - Taylor's series, Laurents series.

IV TOPOLOGY

Topological spaces & continuous functions, metric topology, Connectedness, compactness, countability and separation axiom, Fundamental group and covering spaces.

V. FUNCTIONAL ANALYSIS:-

Fundamentals of normed Linear spaces, bounded Linear maps on Banach spaces, open mapping theorem, converse of Reimann - Lebesgue Lemma, spaces of bounded linear maps, weak and weak convergence, compact linear maps, geometry of Hilbert space, Approximation and optimisation, Bounded operators of Hilbert spares, spectrum of bounded operators on Hilbert spaces.

VI. DIFFERENTIAL EQUATIONS:-

Linear differential equations of higher order - Linear dependence and Wronskian basic theory - solutions in power series - Introduction to second order linear equations with ordinary points. Legendre equations and legender polynomial, Second order equations with regular singular points, Bessel equations. Partial differential equations; first order, complete Integral, general Integral, singular Integral, Compatible systems of first order equation, charpit's method. Partial differential equations of second order - Linear and partial equations with constant co-efficients Laplace equation - Elementary solutions of Laplace equation.

VII DIFFERENTIAL GEOMETRY

Curves, analytic representation, arc length, tangent, oscillating plane, Curvature, torsion, formula of Frenet, Contact, natural equations, helices, involutes & evolutes, Elementary theory of surfaces - Analytic representation - first & second fundamental forms, normal - tangent form, developable surfaces, Euler's theorem, Dupin's indicatries - Conjugate directions, Triply orthogonal system of surface,

Fundamental Equations: Gauss, Gauss - Weingastern, Codassi, Curvilinear, Co-ordinates in space. Geodesics on surfaces Geodesic curvature, Geodesics, Geodesic Coordinates, surfaces of constant curvature, rotation of surfaces of constant curve.

VIII. MECHANICS AND FLUID DYNAMICS:-

STATICS.- Equilibirium of a system of particles, work and potential energy, friction, commoniatenary principles of virtual work - stability of equilibrium of forces in three dimensions. DYNAMICS:- Rectilinear motion - motion with constant acceleration motion under gravity - motion along an included plane - motion under gravity in a resisting medium Impalsive forces & Impact, Principles of Conservation of Linear momentum, Collision of two smooth spheres - Direct Impact of sphere on a fixed plane - Projectiles - Circular motion of a particle, Central orbits, moments of enertia, motions of a rigid body about a fixed axis - K.E. of rotation - moment of momentum - motion of a circular disc - hoop or a sphere rolling down an inclined plane.

Compressible flow; effects of compressibility, Linearised theory, thermodynamical consideration, energy equation, plane shock waves, oblique shockwaves, prantle-mayer expansion - Navier Stoke's equation - dissipation of energy - diffusion of vorticity condition of no slip - steady flow between concentric rotating cylinder - steady viscos flow in tubes of uniform cross section - uniqueness theorem, Reynolds number, Boundary Layer thoery.

IX. PROBABILITY & MATHEMATICAL STATISTICS: -

Probability of an event, Baye's theorem, Variables - random. Discrete & continuous distributions - Expected values & functions. Moment generating function and Charasteristic functions - Chebychev's inequality statements of uniqueness theorem & inverse theorems on charasteristics functions.

STANDARD DISTRIBUTIONS:

Binomial, poisson, normal & uniform Sampling distribution of Statistics based on normal distribution – Chi square concept of bivariate distributions, Correlation and regression, Linear prediction, rank Correlation Coefficient, Partial & multiple Correlation. Sample moments & their functions. Notion of sample - statistic - Chi square - distribution, t, Fisher's, Z disltributions - distribution of regression coefficients.

SIGNIFICANT TESTS:

Concepts - parametric tests for small & large samples - Chisquare test - test of Independance by contingency table - theory of hypothesis testing - Power function - Most powerful tests - Uniformly most powerful test - unbiased tests.

X OPERATIONS RESEARCH

Origin & Development of operation's research, Nature & Characteristics of O.R. Models in O.R. General solution methods for O.R.models, uses and limitations of O.R.

LINEAR PROGRAMMING

Formulation of problem, graphical solutions, standard form. Definition of basic solution, degenerate solution, simplex method, Definition of artificial variable.

TRANSPORTATION PROBLEM

Definition, solutions to transportation problem - initial feasible solution - opimatil test - Degenerary - Travelling salesman problem. Sequenceing : Processing n jobs through m machines, Replacement of equipment that deteriorates or falls suddenly.

TAMIL NADU PUBLIC SERVICE COMMISSION
STATISTICS (POST GRADUATE DEGREE STANDARD)

CODE NO: 251

Unit - I: Probability and Random Variables

Instruction to probability: Random Experiments, Sample Space and events, Definition of probability. Classical, Empirical and Axiomatic approach to probability; Addition and Multiplication Theorem, Conditional probability and Baye's Theorem. Random Variables and Distribution function, Distribution Function of a vector and a set of infinitely many Random Variables – Mathematical Expectation and conditional Expectation. Convergence in Probability – Weak Law of large Numbers and strong law of large Number – Central limit Theorem – Chebysher's inequality.

UNIT – II: Distributions

Introduction to Distributions: Marginal and conditional distributions – Generating functions: - MGF, PGF and CGF – Characteristic function.

Discrete distributions: Binomial, Poisson, Negative binomial and Hyper geometric distribution.

Continuous Distributions: Joint – Marginal – and conditional distributions. Uniform, Normal, Cauchy, Beta, Gamma, Log-Normal, Exponential, Chi-Square, t and F distributions and their properties.

UNIT- III: Estimation Theory

Introduction to Estimation Theory: Unbiasedness, Consistency, Efficiency, Sufficiency and Completeness.

Theorems and Inequalities: Cramer Rao inequality, Chapma-Robin inequality, Rao – Blackwall Theorems, Lehman – Scheffe, Theorem (with examples), - Factorization theorem.

Methods of Estimation: Method of moments, Method of Maximum Chi-Square, Method of Least Square, Bayesian Estimation (with example) – Confidence Intervals for Large and Small Samples.

UNIT – IV: Testing of Hypothesis and Non-Parametric tests

Introduction to Testing of Hypothesis: Simple Null hypothesis, Alternative hypothesis, composite hypothesis, two kinds of Errors – Critical Region – Power function.

Tests: Most Powerful test, Neyman – Peerson Lemma: UMP and Unbiased test, MLR Property and its uses for construction of UMP tests.

Non – Parametric test: Run test – Median test, Sign test – Mann – Whitney test – Wilcoxon test – Komogrov – Smirnov test (one and two sample test procedures), SPRT Test.

UNIT – V: Regression Analysis

Simple and Multiple Regression model: Description of Data Model – Estimation and Test of Hypothesis on Regression Coefficient – Index of fit – Predicated Values and Standard error – Evaluation of Fit – Analysis of Residuals.

Multi – collinearity and its effects on inference and forecasting – Selection of variables – Forward Selection and backward elimination procedures (stepwise method).

UNIT – VI: Sampling Theory

Introduction to the theory of Sampling: Sampling designs – estimation procedures – properties of estimations – SRSWOR - Properties of SRSWOR

Systematic, Stratified, Ratio and Regression Sampling methods and Estimate of Double Sampling – Sampling and non – sampling errors – Cluster sampling – Two stage and Multistage sampling – sampling and sample survey organizations – CSO and NSSO.

UNIT – VII: Design of Experiments

Contrasts – linear Constraints – Orthogonal contrasts – linear models – fixed effect model – random effect model – mixed effect model.

Principles of CRD, RBD, LSD, 2^n and 3^n factorial experiments and split plot Design.

Partial and complete confounding – BIBD – Youden Square design – Lattice designs PBIBD: Construction and Analysis.

UNIT – VIII: Statistical Quality Control (SQC)

Introduction to statistical process and product control:

Control Charts – Shewart Control Charts for variables and attributes – X-bar, R, σ, p, np C and U, Charts – (Both fixed and variable sample size) – CUSUM charts – OC curve for control charts.

Sampling Inspection – 100% sampling Inspection – AOQL, LTPD, producers Risk and consumer, Risk Single, double, Multiple and Sequential sampling plans for attributes – variable sampling plan – OC, ASN, ATI and AOQ curves.

Implementing six sigma – over view and implementations – Examples.

UNIT – IX: Time series and Index numbers

Concepts of time series, additive and multiplicative models, resolutions into Components, determination of trend by free drawing, Moving averages, filling of mathematical Curves, seasonal indices and the estimate of the variance for random Components, Auto-regressive, Moving averages and ARIMA models.

Definition, Construction interpretation and limitations of index numbers, Lapeyre's Paasche's Marshell – Edgeworth, Fisher's index number and their Comparisons for Good index Number. Construction for cost of living index number and Wholesale price index.

UNIT – X: Applied Statistics through MS-Excel and R – Language

Over view of MS-Excel: Construction of charts and diagrams – Sorting – Filtering – Removing duplicates – Calculation of Measures of Central tendency, Measures of dispersion, correlation Regression and curve fitting using – Excel.

Over view of R Language – Defining the R project – objects and data structures – Graphics using. R language – Calculation of Measures of central tendency, dispersion, Correlation and fitting of Regression line (Linear and logistic).

TAMIL NADU PUBLIC SERVICE COMMISSION

COMMERCE   (POST GRADUATE DEGREE STANDARD)

CODE NO:252

UNIT I Company law- Types of companies – one-man company, small company, private company, Public company – Prospectus – types – Shelf prospectus, Red-herring prospectus - Appointment of directors – powers of directors - Audit committee – Related party transactions - Doctrine of indoor management - Modes of winding up

UNIT II Business Environment – Meaning – Environmental scanning and Strategic Early Warning System (SEWS), intellectual property rights and information policy – FDI and its impact on the economy, technology transfer - Corporate social responsibility - business and environment - Interface - legal, political, economic, social and cultural aspects

UNIT III Management– Definition and significance of management – Principles and functions of management - planning – organising - direction - motivation - co-ordination and control - management Vs administration - scientific management - rationalisation - personnel management - nature, scope, labour problem, employee turnover, absenteeism, trade union – Core Competence, TQM

UNIT IV Marketing– Definition and approaches to marketing –market segmentation - new product development – product life cycle - market channel - Pricing - advertisement and salesmanship - promotional strategies - consumer protection in India - Market Intelligence - Procedure and Law **relating** to import and export - Quality control Standardisation agencies - national and international – e-commerce – meaning, features, importance

UNIT V Taxation - Sales tax, excise duty, customs duty, MAT, VAT - Direct taxation: Income tax: computation of income under heads salaries and house property – Transfer pricing - **DTAA (Double Taxation Avoidance Agreement)** – **ICDS (Income Computation & Disclosure Standards)** – GST

UNIT VI Financial Accounting - Advanced problems in partnership accounts, Departmental and branch accounts, Hire purchase and Instalment system, Depreciation and Insurance Claims - Recent developments in accounting – social accounting, forensic accounting, fair value accounting, carbon accounting, kaizen accounting)

UNIT VII Management and Cost Accounting – Management Accounting - **Meaning and significance** - cash flow, fund flow - Ratio analysis - interpretation of financial statements - Marginal costing cost - Volume Profit relationship, Break-even - analysis - budgets - budgetary control - **Cost Accounting**– Nature and scope –

cost centre and profit centre - Standard Costing - Variance analysis - responsibility accounting - profit planning and control

UNIT VIII Financial Management – Goals of financial management – Capital budgeting – methods of evaluating capital investment projects – pay-back method, Accounting rate of Return method, Net Present Value method, Internal Rate of Return method – Cost of capital – meaning and significance – capital structure – Operating leverage, financial leverage, combined leverage – EBIT-EPS analysis

UNIT IX Auditing: Meaning and significance – Audit of companies - appointment, status, Powers, duties and liabilities of auditors - audit report of share capital and transfer of shares – Investigation – Secretarial audit

UNIT X Computer programming for Management- Concept, languages: **C, C + +, java, visual basic, Oracle, xBRL (Extensible Business Reporting Language) -** Computerised Accounting

CO-OPERATION

(POST GRADUATE DEGREE STANDARD)   CODE NO:253

HISTORY, THEORY AND DEVELOPMENT OF CO-OPERATION

UNIT I - CO-OPERATION: CONCEPTS AND PRINCIPLES:

Early models of co-operation (Robert Owen, Rochdale Pioneers, Raiffeisen) - Salient features of Co-operation - Social, economic and moral benefits of Co-operation – Evaluation of Principles of Co-operation – ICA Statement of Co-operative Identity 1995.

UNIT II - CO-OPERATIVE / DEVELOPMENT IN INDIA:

Origin and Development of Co-operatives during pre and post independent era – Planned Development of Co-operatives - Co-operatives in the globalised Era - Recommendations of the All India Rural Credit Survey Committee (1954) – State Partnership in Co-operatives - Various forms of Pecuniary and Non-Pecuniary assistances - limitations of state interference – Self reliant vs State aided co-operatives.

UNIT III - CO-OPERATIVE BANKING:

Constitution, objectives and functions of Primary Agricultural Co-operative Credit Societies, Central Co-operative Banks and State Co-operative Banks - Functions and working of Agricultural and Rural Development Banks (Primary and Apex) - Constitution, objectives and functions of Urban Co-operative Banks, Employees credit societies and Industrial Co-operative Banks - Banking Regulations Act (as applicable to Co-operative societies)

UNIT IV - NON CREDIT CO-OPERATIVES:

Constitution, objectives, working of Marketing and Processing Co-operatives - Consumer Co-operatives and super markets - Dairy Co-operatives - Weavers Co-operatives and Spinning Mills - Housing Co- operatives.

UNIT V - LEGAL FRAMEWORK FOR CO-OPERATIVES :

History of Co-operative Law - Study of various provisions of the Tamil Nadu Co-operative Societies Act 1983 and Rules 1988 – Tamil Nadu Co-operative Election Commission - Co-operative Model Act - Self reliant Act – Multi State Co-operative Societies Act.

UNIT VI - CO-OPERATIVE MANAGEMENT AND ADMINISTRATION:

Features of co-operative management – Functions and functional areas of management - Decision making in Co-operatives – Co-operative governance and empowerment – Employee and Employer relationship in Co-operatives - Set -up of the Department of Co-operation - Office of the Registrar of Co-operative Societies - set up of Functional Registrars - set - up of the Audit Department.

UNIT VII - GENERAL AND CO-OPERATIVE ACCOUNTS:

Fundamentals of Double entry book keeping - Important transactions - Account book - Trial Balance - Correction of errors - Adjusting entries - final accounts – Balance sheet - Co-operative Account keeping - difference between double entry book keeping and co-operative account keeping - Day book - Forms of Day book - Ledgers - Statement of Receipts and Payments - Balance Sheet - Final Account - Distribution of Net profit.

UNIT VIII - GENERAL AND CO-OPERATIVE AUDIT:

Nature and Scope - various kinds of Audit - Audit Programme - vouching - routine checking - verification and valuation of assets and liabilities - Audit of final accounts - frauds and methods of detection - Audit defects and Rectification - Audit note – Computerisation of Audit.

UNIT IX - CO-OPERATIVE RESEARCH, EDUCATION AND TRAINING:

Role of Research in co-operation - Areas of Research in Co-operation – Research design and methods of Research and tools for Data Collection - Institutions catering to Co-operative Education and Training (NCUI, State and District Co-operative Unions, NCCT and its affiliates) - Role of ICA in Co-operative Education and Training – Co-operative publications.

UNIT X - MANAGEMENT INFORMATION SYSTEM:

The process of MIS - Systems Approach - Electronic Data Processing and Computerisation – MS WORD- EXCEL – Reporting system.

Syllabus - Paper-II

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-