

ANNA UNIVERSITY : CHENNAI - 600 025
ADMISSION TO M.Sc. (2 Years) DEGREE PROGRAMME (2012 – 2013)
INFORMATION AND INSTRUCTIONS TO CANDIDATES

1. GENERAL

Applications are invited for admission to the following M.Sc. (2 years) degree programmes (Group Code A to H) offered at University Departments of Anna University, Chennai - 600 025.

Sl. No.	Group Code	Name of the Programme
1.	A	Applied Mathematics
2.	B	Materials Science / Medical Physics
3.	C	Applied Chemistry
4.	D	Applied Geology
5.	E	Electronic Media (SS)*
6.	F	Science and Technology Communication(SS)*
7.	G	Environmental Science (SS)*
8.	H	Computational Biology (SS)*

* (SS) These programmes are offered under SELF - SUPPORTING categories.

2. DURATION OF THE PROGRAMME : 4 Semesters (2 Academic Years)

3. ELIGIBILITY FOR ADMISSION :

The candidate must have passed the degree in the relevant field (as given in Table-1) with (10+2+3 / 4 years) pattern from a recognised University.

TABLE-1

Group Code	Programme	Eligible / Qualifying Degree
Group - A	Applied Mathematics	B.Sc. Mathematics (or) B.Sc. (Applied Science)
Group - B	1. Materials Science	B.Sc. Physics with Mathematics as an Ancillary Subject (or) B.Sc. Applied Science
	2. Medical Physics*	
Group - C	Applied Chemistry	B.Sc. Chemistry with Mathematics and Physics as Ancillary Subject (or) B.Sc. Applied Science
Group - D	Applied Geology	B.Sc. (Geology/Applied Geology/Physics/ Chemistry/Environmental Science/Applied Science)
Group – E	Electronic Media	Any B.Sc. degree / B.A. (Journalism / Visual Communication / Mass Communication)
Group – F	Science and Technology Communication	Any Bachelor's degree with Physics & Chemistry subjects at +2 level.
Group - G	Environmental Science	B.Sc. any discipline with one course related to Chemistry / Biology
<p>* M.Sc. Medical Physics program, offered by Department of Medical Physics, Anna University, Chennai is one of the professional courses dealing with Radiation Physics, Radiation therapy and radiation safety to the public, patients and personnel. As per AERB safety code 2011 [code No. AERB/RF-MED/SC-1(Rev.1)], it is mandatory that the candidates who complete M.Sc. Medical Physics degree should undergo Medical Radiological Safety Officer examination conducted by AERB after undergoing a minimum of 12 months internship in any one of the AERB recognized Radiotherapy Department to work in the Hospital and Medical institutes as a qualified Medical Physicist or as Radiological Safety Officer.</p>		

Group - H	Computational Biology*	<p>B.Sc. : Physics / Chemistry / Mathematics / Biotechnology / Biochemistry / Microbiology / Plant Biology and Biotechnology / Animal Biology and Biotechnology - With Mathematics at +2 level compulsory.</p> <p>B.E./B.Tech. : Industrial Biotechnology/Biotechnology/Pharmaceutical Technology / Food Technology / Chemical Engineering / Information Technology/Information Science/Computer Science and Engineering/ Electrical and Electronics Engineering/Electronics and Communication Engineering/Mechanical Engineering/Biomedical Engineering / Electronics and Instrumentation Engineering.</p>
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Candidates appearing for final semester / year examination in April / May – 2012 may also apply for admission.

For Group A to G programme, the admission is based on the marks obtained in the Entrance Examination to be conducted by Anna University, Chennai–25 on 08.04.2012.

Common merit list will be prepared for M.Sc. Electronic Media and M.Sc. Science and Technology Communication courses.

* For Group H, candidates should have appeared for the Common Entrance Test to be conducted by Pondicherry University.

4. ENTRANCE EXAMINATIONS

For Group A to G

- a) Date of Entrance Examinations : **08.04.2012**
- b) Centre for Entrance Examination : **CHENNAI ONLY**

For Group H M.Sc. Computational Biology : **Entrance Test will be conducted by Pondicherry University visit www.pondiuni.edu.in**

5. FILLING OF APPLICATION

The candidates must fill up the application form carefully

The application form is common for admission to all M.Sc. (2 years) Degree Programmes.

6. NATIVITY

- Candidates who have studied 5 Years (from XI Standard onwards) continuously in Tamil Nadu will be considered as Tamil Nadu Candidates. Candidates who are Native of Tamil Nadu but have studied either XI, XII or / and Degree out side Tamil Nadu have to produce a Nativity Certificate from the Tahsildar of their Native Taluk / District of Tamil Nadu for considering them as Tamil Nadu Candidate.
- Other State candidates will be considered under Open Category.

6. SELECTION AND ADMISSION PROCEDURE

6.1. Selection of candidates will be made as per the merit list prepared based on the marks secured in the Entrance Examination conducted by Anna University

The selection of candidates will be through counselling following the rules of reservation of Government of Tamil Nadu. Reservation shall be made under seven categories namely OC, BC (other than BC Muslim), BCM (BC Muslim), MBC / DNC, SC, SCA and ST.

Tamil Nadu Native candidates alone will be considered for communal reservations and the list of communities eligible for communal reservation are given in **Annexure**.

Candidates seeking admission against ST/SC/SCA/MBC & DNC/BCM (BC Muslim) / BC quota should obtain the certificate of social status issued by the competent authority in the prescribed Permanent Community Card in Tamil Nadu and enclose an attested photocopy of the same along with the application.

- a The applicant from Tamil Nadu State should have a valid Permanent Community Certificate in the card format issued by the competent authority for ST/SC/SCA/MBC & DNC/BC/BCM (BC Muslim) communities in the format prescribed by Government of Tamil in the G.O.Ms.No.781 (Revenue Department) dated 2.5.1988. In the case of ST candidates, the community certificate should have been issued by the Revenue Divisional Officer / Sub-Collector / P.A. (General) to the Collector of Chennai vide G.O. Letter No. 32061/ADWII/89-2, dated 27.12.1989 and Letter No.21424 / ADWIII / 94-4, dt.15.11.1994 from the Secretary to Government, Adi Dravidar and Tribal Welfare Department, Chennai 600 009. The Permanent Community Certificates issued to ST candidates by Tashildars upto 11.11.1989 is valid.
- b Community Certificates obtained from Other States will not be considered for communal reservation.
- c For communities linked with Districts (See Annexure) the candidate should obtain their community Certificate in the respective districts except the communities mentioned in the G.O. (St) No.95 BC, MBC & Minorities Welfare Department, dated 28.10.2009. Community Certificate obtained from other than the respective District will not be considered.

Note: Candidates who do not enclose the attested photo copy of Permanent Community Certificate (card format) along with application will be considered under open category only and further correspondence in this regard will not be entertained.

More number of candidates than the actual seats available will be called for counselling. The required number of seats will be filled based on merit and following communal reservation through counselling.

- 6.1.1. If there is a tie (same marks obtained by more than one candidate) in the merit list, the candidate having higher average percentage of marks upto pre-final semester/year of the qualifying examination and have passed all the subjects of the qualifying examinations upto pre-final semester / year will be ranked above.
- 6.1.2. Candidates who have secured zero mark / negative mark in the entrance examination are not eligible for admission. Candidates who have passed all the subjects in the qualifying degree Examinations alone will be permitted to attend the counselling. Candidates who do not attend counselling on the prescribed date and time cannot claim any right for admission and their names will be removed from the merit list. Call letters for counselling will be sent to the individuals through self-addressed envelope enclosed in the application form (by ordinary post). Schedule of counselling will be available in Anna University, Chennai, website: www.annauniv.edu.

- 6.1.3. Candidates who have passed all the subjects in the qualifying degree exam but have not yet received their provisional / degree certificate will also be considered for counselling. However, such candidates have to produce an evidence for having passed all the subjects like downloaded mark sheet attested by any Faculty/HOD/COE. If such candidates are selected and offered provisional admission as per merit, they have to join the programme on the prescribed date after paying the prescribed fees. They have to produce the provisional/degree certificate on or before the date prescribed by the Dean of the Campus concerned. The provisional admission of those candidates who fail to produce the said certificate on or before the specified date, even if eligible otherwise, will automatically stand cancelled. Such candidates have to discontinue the programme and they are not eligible for refund of the fees paid.
- 6.2. Special Reservation for Differently abled persons is available as per Government Norms.

The Counselling will be conducted at Anna University, Chennai - 600 025. (Except M.Sc. (2 years) Computational Biology). Candidates should attend counselling at their own cost with all their original certificates with an initial deposit of Rs. 5000/- in the form of a Demand Draft.

Candidates are advised to visit Anna University website www.annauniv.edu for the results of the Entrance Examinations and the schedule for counselling and for other details regarding admission to M.Sc. Degree Programmes.

Hostel accommodation is not available for all the PG programmes.

7. HALL TICKET

- 7.1. HALL TICKET for Entrance Examination will be despatched to all eligible candidates (except for M.Sc. (2 years) Computational Biology) on or before 26.03.2012. If any candidate does not receive the Hall Ticket by 06.04.2012 he/she should get a certificate from the Head of the Institution last studied/studying or from a Grade A or B officer to the effect that he/she is a genuine candidate for the Entrance Examination along with an attested copy of a passport size photograph which has been taken from the same negative as used for the photo in the application and hall ticket and produce the same on 07.04.2012 between 10.00 a.m. and 5.00 p.m. in the enquiry office at the Examination Centre, Anna University, Chennai –25. The candidate, if eligible after verification, will be issued a duplicate Hall Ticket.
- 7.2. The Hall Ticket of Entrance Examination should be produced at the time of admission. If the mark sheet is lost, a duplicate mark sheet can be obtained on payment of Rs. 250/- on a written requisition to the Director (Admissions), Anna University , Chennai – 600 025. If the Hall Ticket is lost, a duplicate Hall Ticket can be obtained on payment of Rs.100/- on a written requisition to the Director (Admissions), Anna University, Chennai - 600 025, indicating the Registration No. and produce an attested photograph which has been from the same negative used for the photo affixed in the application and Hall Ticket with a certificate obtained from the Head of the Institution where he/she has studied or is studying or an officer of Grade A or B to the effect that he/she is a genuine candidate who has appeared for the Entrance Examination.
- 7.3. The Mark Sheet of the Entrance Examination will be despatched to the candidates after the publication of marks of the Entrance Examination (in the envelope enclosed by the candidate).

The payment for Duplicate Hall Ticket / Mark Sheet must be made in the form of a D.D. obtained from any Nationalised Bank drawn in favour of "The Director (Admissions), Anna University", payable at Chennai.

8. IMPORTANT DATE

Last date for the receipt of completed applications : **20.03.2012 - 5.30 pm.**

9. ENCLOSURES

Attested copies of the following certificates are to be enclosed with the application (originals should not be enclosed).

- i) X Standard Mark Sheet
- ii) XII / H.Sc. Mark Sheet
- iii) Degree Certificate or Provisional Degree Certificate. (Candidates appearing for final semester/year exam. of the Qualifying Degree in April /May 2012 have to enclose a bonafide certificate from the Head of the Institution where the candidate is studying) or attested photocopy of the University Examination April/May 2012 Hall Ticket.
- iv) Mark lists of all the semesters / consolidated mark sheet of Qualifying Examination completed.
- v) Copy of Permanent Community Certificate issued by the competent authority for BC / BCM / MBC / SC / SCA / ST candidates.
- vi) Medical Certificate for Differently abled person (if applicable)
- vii) Nativity Certificate (if applicable)

10. MAILING ADDRESS

Completed application should be sent to "The Director (Admissions), Centre for Admissions, Anna University, Chennai – 600025".

Last date for receiving completed filled-in application is 20.03.2012.

The University shall not be responsible for any postal delay.

Applications received after the last date will be rejected. The amount paid towards the cost of application form and Registration will not be refunded under any circumstances.

11. GUIDELINES / SYLLABUS FOR THE ENTRANCE EXAMINATION

GUIDELINES

- 11.1 There will be a separate Entrance Examination on the following subjects in B.Sc. (Major) Standard (refer 11.7).

**1. Mathematics 2. Physics 3. Chemistry 4. Geology 5. Media Science
6. Environmental Science.**

The duration of Entrance Examination is 2 hours.

The Entrance Examination will be conducted at Anna University, Chennai – 600 025.

- 11.2 The Question paper will have 100 objective type questions. Each question will have four alternative answers. The candidate has to choose the correct answer and shade the appropriate box against the question in the answer sheet with pencil. **While evaluating the answers, 1 mark will be awarded for each correct answer and 1/4 mark will be deducted for every wrong answer.** However, no deduction will be made for questions left unanswered. Multiple shadings will be considered as wrong answer and 1/4 mark will be deducted.

- 11.3 The Question Paper for Mathematics, Physics, Chemistry, Geology, Media Science and Environmental Science will contain 100 questions each.
- 11.4 Candidates choosing the following subjects for appearing in the Entrance Examination will be considered only to the programmes indicated against each.

Sl. No.	Subjects*	Programmes	Group Code
1	Mathematics	M.Sc. (Applied Mathematics)	A
2	Physics	M.Sc. (Material Science and /or M.Sc. (Medical Physics)	B
3	Chemistry	M.Sc. (Applied Chemistry)	C
4	Geology	M.Sc. (Applied Geology)	D
5	Media Science	M.Sc. (Electronic Media)	E
		M.Sc. (Science and Technology Communication)	F
6	Environmental Science	M.Sc. (Environmental Science)	G
7	** Computational Biology	M.Sc. Computational Biology	H

* Candidates are informed that they can write the Entrance Examination only on the subject for the programme (as shown in the table above) chosen by the candidate as per Sl.No.1.

** For Group code H, M.Sc. (2 years) Computational Biology programme, the admission is through the Common Entrance Test to be conducted by Pondicherry University. Candidates have to appear for the Common Entrance Test conducted by Pondicherry University.

SYLLABUS FOR THE ENTRANCE EXAMINATIONS

1. MATHEMATICS

For Admission to M.Sc. (Applied Mathematics)

Part 1: **MODERN ALGEBRA AND ANALYTICAL GEOMETRY:** **Modern Algebra:** Group - rings and fields - Vector spaces: Hermitian - Unitary and normal operations. **Analytical Geometry** - General equation of conics – tracing of conics – polar form of equations - shortest distance between skew lines - sphere - cone and cylinder – ellipsoid - paraboloid and hyperboloid – equations of normal and tangent planes.

Part 2: **REAL ANALYSIS AND COMPLEX ANALYSIS:** Sequences and Series – Contests - alternating series – Leibnitz test – Uniform convergence – power series – radius of convergence - Open and closed sets - limit points - completeness – uniform continuity - uniform convergence - Riemann integrals - Analytic functions – Characterization for analytic functions - Harmonic functions. conformal mapping – standard transformations - complex integration - Cauchy's theorem and applications – singularities and residues.

Part 3: **VECTOR ANALYSIS, INTEGRATION AND DIFFERENTIAL EQUATIONS:** Gradient – divergence - curl - Line, Surface, Volume integrals – Greens, Gauss divergence and Stokes theorems – Improper integrals – Beta - gamma functions. **ODE:** Linear Equations with constant coefficients - Simultaneous differential equations. **PDE:** General, particular and complete integrals – Lagrange's equation of first order of equation.

Part 4: **NUMERICAL METHODS AND PROGRAMMING IN C:** **Numerical Methods:** Roots of algebraic and transcendental equations - method of bisection – Newton - Raphson method – Trapezoidal and Simpson's rule of numerical Integration – Straight line fitting by square method. **Programming In C:** Constants – variables – standard input / output functions - control statements – Recursions - Arrays – one dimensional and Multi - dimensional arrays.

Part 5: **DISCRETE MATHEMATICS AND GRAPH THEORY:** **Discrete Mathematics:** Set theory - Permutations and combinations - Inclusion – Exclusion principle – relations – functions - posets – Lattices – Boolean algebra. **Graph Theory:** Graphs and subgraphs – Trees - Eulerian and Hamiltonian graphs – Matching – Planar graphs – Graph colouring.

Part 6: **PROBABILITY, STATISTICS AND LINEAR PROGRAMMING:** Random Variables, Standard distributions – Marginal and Conditional distributions – Correlation and linear regression – Testing of Hypothesis. **Linear programming:** Formulation and its Graphical solution, simplex method.

Part 7: **STATICS AND DYNAMICS:** Statics: Forces: Types of forces – Magnitude and direction of the resultant of the forces acting on a particle – Lami's theorem – Equilibrium of a particle under several coplanar forces – Parallel forces – Moments. Friction: Laws of friction – Angle of friction – Equilibrium of a body on a rough inclined plane acted on by several forces – Centre of gravity of simple uniform bodies – Triangular lamina – Rods forming a triangle – Trapezium – Centre of gravity of a circular arc, elliptic quadrant, solid, and hollow hemisphere, solid and hollow cone. Dynamics: Kinematics – Kinematics of a particle – Velocity – Acceleration – Relative velocity – Angular velocity – Newton's laws of motion – Equation of motion – Rectilinear motion under constant acceleration – Simple harmonic motion – Moment of inertia – Moment of inertia of simple bodies – Theorems of parallel and perpendicular axes, Moment of inertia of triangular lamina – Circular ring – Right circular cone – Sphere.

2. PHYSICS

For Admission to M.Sc. (Material Science) & M.Sc. (Medical Physics)

Mechanics: Linear and angular velocity – Linear and angular acceleration – Rotational kinetic energy – Moment of inertia – Torque and angular momentum – conservation of angular momentum – The center of gravity – stress and strain – variation of pressure with depth – equation of continuity – Bernoulli's theorem and applications – simple harmonic motion – resonance.

General Physics, Sound, Heat and Thermodynamics: Simple wave motion – Doppler effect – superposition of waves – standing waves – reflection and transmission – velocity of sound – ultrasonics and applications – acoustics of buildings – recording and reproduction of sound – Kinetic theory of gases – Laws of thermodynamics – Heat engines, refrigerators – entropy – transfer of heat.

Optics and Spectroscopy: Propagation of light – Reflection and refraction – Polarization – wave-particle duality – Mirrors, Lenses and optical instruments – interference – diffraction – gratings – light spectra – X-ray spectra – Raman spectroscopy.

Electricity, Magnetism and Electromagnetism : Electrostatics – Electric potential – Capacitance and dielectrics – current and resistance – Magnetic materials – hysteresis – electromagnetic induction – Generators and motors – Eddy currents – Oscillation in an LC circuit – LCR circuits.

Atomic Physics, Nuclear Physics and Electronics: Electron theory of metals – atomic structure, X-rays – X-ray Crystallography – lasers – Relativistic momentum and energy – Properties of Nuclei – Radioactivity – Nuclear reactions – Fission and Fusion – Radiation damage – Radiation detectors – Uses of radiation – Semiconductors and insulators – Series and Parallel LCR circuits – Diode Theory – Rectifications and power supply construction – amplifiers – oscillators – Modulation and demodulation – Electromagnetic wave propagation – wave equation – Electromagnetic Radiation.

3. CHEMISTRY
For Admissions to M. Sc. (Applied Chemistry)

Organic Chemistry

1. Structure and bonding – Aromaticity – Inductive effect - Hyper conjugation - Tautomerism
2. Stereochemistry - Optical activity and chirality – Cis - trans isomerism - Conformational analysis - Steric strain.
3. Formations and reactions of carbo cations, carbanions and free radicals
4. Acids and bases - Effect of structure on the strength of acids and bases
5. Substitution reactions - Aliphatic nucleophilic substitutions – Aromatic electrophilic substitutions
6. Addition reactions - Addition to carbon-carbon multiple bond - Nucleophilic addition - Electrophilic addition - Free radical addition - Addition to carbon-hetero multiple bond
7. Eliminations
8. Rearrangements – Nucleophilic rearrangements – Electrophilic rearrangements
9. Redox reactions

Inorganic Chemistry

1. Structure of atoms and molecules - Covalent bonding in diatomic molecules - Structure and bonding in organic compounds
2. Condensed phases - Dipole moments - Ionic bonding - structure of solids
3. Acids, bases and non-aqueous solvents
4. Chemistry of the elements-Metals and non metals
5. Chemistry of coordination compounds - Ligand field and molecular orbital theories - Synthesis and reactions of complexes-Isomerism
6. Radioactivity Radioactive disintegration - Detection of nuclear radiation - Properties of radioactive rays - Radioactive series - Nuclear stability - Artificial radioactivity

Physical Chemistry

1. Fundamental concepts of thermodynamics – Heat – Work - Internal energy –Enthalpy - First law of thermodynamics - State functions – Thermochemistry -Entropy and second law of thermodynamics
2. Real gases - equation of state - Critical state - Law of corresponding states
3. Chemical kinetics - Determination of rate laws - Temperature dependence of reaction rates
4. Electrochemical cells - Galvanic cells - Thermodynamics of galvanic cells - Reversible and irreversible cells - concentration cells - Liquid junction potential
5. Surface chemistry -Colloids and catalysis
6. Solutions - Partial molar quantities - Thermodynamic properties of ideal solutions - Colligative properties - ionic equilibria
7. Quantum mechanics - Black body radiation - Energy quantization - Photoelectric effect - Bohr's theory of hydrogen atom – de-Broglie hypothesis - Uncertainty principle - Quantum mechanics - Time independent Schrodinger equation - Particle in a one dimensional box.

4. GEOLOGY

For Admission to M. Sc. (Applied Geology)

Part-1: PHYSICAL GEOLOGY AND STRUCTURAL GEOLOGY:

Origin, Age and Interior of earth – Weathering and types soils – Geological action of rivers, wind, Glaciers, sea and ground water – Mountains – Volcanoes – Earthquake – Plate tectonics – Isostasy. Stress – Strain Analysis – young's Module - Attitude of beds use of clinometers and Brunton Compass – Toposheet – Classification, types and recognition element of folds, faults, unconformities and joints.

Part-2: CRYSTALLOGRAPHY AND MINERALOGY:

Symmetry elements, various forms and general symbols for all the major crystallographic classes – physical and optical properties of minerals – Megascopic and Microscopic study of rock forming minerals and other important individual minerals.

Part-3: PETROLOGY:

Characteristic features of Igneous, Sedimentary and Metamorphic rocks, Megascopic and Microscopic study of major groups of rocks. Classification, structures, forms, textures of igneous, Sedimentary and Metamorphic rocks, Binary and Ternary system- Agents and types Metamorphism – Study of all important groups of rocks.

Part-4: STRATIGRAPHY, PALEONTOLOGY & ECONOMIC GEOLOGY:

Principles of Stratigraphy – Physiographic divisions of India – Geology of India - Morphological characteristics of phylum, Brachiopoda, Arthropoda – (Trilobites and Ostrocods), Echinodermata, Protozoa, Plant fossil, Foraminifera, Index fossils and its application in Coal & Petroleum Industries. Process of formation of mineral deposits – study of major ores and their distribution, origin and occurrences – Iron, Manganese, Copper, Chromate, Lead and Zinc etc., Industrial Minerals – Origin and varieties of coal, Coal fields in India, Mineral resources of Tamil Nadu, Oil fields in India.

Part-5: APPLIED GEOLOGY

Remote Sensing application to Earth Sciences, Physics of the earth – Gravity and Magnetic field – geophysical exploration methods – Geological consideration for dams, reservoirs, Tunnels, landslide – Geochemistry – Distribution of elements, and mining Geology.

5. MEDIA SCIENCE

For Admissions to M.Sc. (Electronic Media) / M.Sc. (Science & Technology) courses

The Question Paper will be designed to test the capability of the candidates in the following areas:
Syllabus and Question Paper Pattern for the Entrance Examination: -

Sl.No	Topic	No. of Questions
1.	Quantitative Ability	20
2.	Analytical Reasoning	20
3.	Logical Reasoning	20
4.	Computer Awareness	20
5.	Visualisation and Creativity	20

6. ENVIRONMENTAL SCIENCE

For Admissions to M.Sc. (Environmental Science)

- Part-I: Environmental Science – Structure of Environment – Atmosphere – Lithosphere – Hydrosphere – Biosphere – Global warming ozone depletion Tides and waves – Lakes and Estuaries – Lentic and Lotic Systems – Ecosystem - Components – Concept of Productivity – Ecological pyramids – Cycling of Chemical elements – Biodiversity – Species diversity – Loss of biodiversity – Biodiversity conservation – International protocols. Pollution of water, Air, Noise and Soil – Pollutants – Standards – Entrophication - Physical, Chemical and biological methods of treatment – Environmental awareness and protection – Role of NGO_s and Pollution Control boards.
- Part-II: Microbiology: Classification and culturing of microorganisms – Isolation, preservation and maintenance of microorganisms – Nucleic acids – Molecular biology techniques – Microbial nutrition – Aerobic and anaerobic respiration - growth phases – Distribution of Microorganisms – air, soil, water – Extremophiles – Adaptation and survival – Indicator organisms – Effective Microbial solution.
- Part-III: Botany: Nomenclature – Classification of Plant Kingdom – Monocots – dicots – classification of algae – salient features of algae – Single cell protein, Biofertilizers – Interaction – positive, negative – Medicinal plants – Fungi – classification, economic importance – Mycorrhiza.
- Part-IV: Zoology: Cell – classification and relationship of various phyla- Protozoa – Rhizopoda, Mastigophora, Sporozoa, Ciliophora – Their characteristics and medical importance– Apiculture, Sericulture, lac culture, carp culture, Pearl culture, prawn culture – Infectious diseases – their vectors, pathogens and prevention – cattle and livestock diseases–their pathogens and vectors.
- Part-V: Chemistry: Elements and valency – Mass balance & equation balance, Redox reactions co-ordination compounds - solutions, chemical equilibria, colloids-kinetics, thermodynamics- catalysis, Radiation – Electrochemistry and corrosion chemistry of N,S,C,OH containing organic compounds - Volumetry – Gravimetric analysis, Errors.
- Part-VI: Biochemistry : P^H , Acids and Bases, Buffers-Carbohydrates, amino acids, proteins, fats major and trace elements, Enzymes, Vitamins and Coenzymes, Temperature relationships - Electrophoresis – Chromatography - Spectroscopy.

ANNEXURE LIST OF COMMUNITIES

I. SCHEDULED TRIBES

**Code
No.**

- 1 Adiyan
- 2 Aranadan
- 3 Eravallan
- 4 Irular
- 5 Kadar
- 6 Kammara (excluding Kanyakumari District and
Shenkottah Taluk of Tirunelveli District)
- 7 Kanikaran, Kanikkar (in Kanyakumari District and
Shenkottah Taluk of Tirunelveli District)
- 8 Kaniyan, Kanyan
- 9 Kattunayakan
- 10 Kochu Velan
- 11 Konda Kapus
- 12 Kondareddis
- 13 Koraga
- 14 Kota (excluding Kanyakumari District and Shenkottah
Taluk of Tirunelveli District)
- 15 Kudiya, Melakudi
- 16 Kurichchan
- 17 Kurumbas (in the Nilgiris District)
- 18 Kurumans
- 19 Maha Malasar
- 20 Malai Arayan
- 21 Malai Pandaram
- 22 Malai Vedan
- 23 Malakkuravan
- 24 Malasar
- 25 Malayali (in Dharmapuri, North Arcot, Pudukkottai,
Salem, South Arcot and Tiruchirapalli Districts)
- 26 Malayakandi
- 27 Mannan
- 28 Mudugar, Muduvan
- 29 Muthuvan
- 30 Pallayan
- 31 Palliyan
- 32 Palliyar
- 33 Paniyan
- 34 Sholaga
- 35 Toda (excluding Kanyakumari District and Shenkottah
Taluk of Tirunelveli District)
- 36 Uraly

II. SCHEDULED CASTES

**Code
No.**

- 2 Adi Dravida
- 3 Adi Karnataka
- 4 Ajila
- 6 Ayyanavar (in Kanyakumari District and Shenkottah
Taluk of Tirunelveli District)
- 7 Baira
- 8 Bakuda
- 9 Bandi
- 10 Bellara
- 11 Bharatar (in Kanyakumari District and Shenkottah Taluk
of Tirunelveli District)
- 13 Chalavadi
- 14 Chamar, Muchi
- 15 Chandala
- 16 Cheruman
- 17 Devendrakulathan
- 18 Dom, Dombara, Paidi, Pano
- 19 Domban
- 20 Godagali
- 21 Godda
- 22 Gosangi
- 23 Holey
- 24 Jaggali
- 25 Jambuvulu
- 26 Kadaiyan
- 27 Kakkalan (in Kanyakumari District and Shenkottah Taluk
of Tirunelveli District)
- 28 Kalladi
- 29 Kanakkan, Padanna (in the Nilgiris District)
- 30 Karimpalan
- 31 Kavara (in Kanyakumari District and Shenkottah Taluk
of Tirunelveli District)
- 32 Koliyan
- 33 Koosa
- 34 Kootan, Koodan (in Kanyakumari District and
Shenkottah Taluk of Tirunelveli District)
- 35 Kudumban
- 36 Kuravan, Sidhanar
- 39 Maila
- 40 Mala
- 41 Mannan (in Kanyakumari District and Shenkottah Taluk
of Tirunelveli District)
- 42 Mavilan
- 43 Moger
- 44 Mundala
- 45 Nalakeyava

Code**No.**

- 46 Nayadi
- 47 Padannan (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 49 Pallan
- 50 Palluvan
- 51 Pambada
- 52 Panan (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 53 Panchama
- 54 Pannadi
- 55 Panniandi
- 56 Paraiyan, Parayan, Sambavar
- 57 Paravan (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 58 Pathiyan (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 59 Pulayan, Cheramar
- 60 Puthirai Vannan
- 61 Raneyar
- 62 Samagara
- 63 Samban
- 64 Sapari
- 65 Semman
- 66 Thandan (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 68 Tiruvalluvar
- 69 Vallon
- 70 Valluvan
- 71 Vannan (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 72 Vathiriyan
- 73 Velan
- 74 Vetan (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 75 Vettiyan
- 76 Vettuvan (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)

II (A) SCHEDULED CASTES ARUNTHATHIYARS

- 1 Adi Andhra
- 5 Arunthathiyar
- 12 Chakkiliyan
- 37 Madari
- 38 Madiga
- 48 Pagadai
- 67 Thoti

III (A). LIST OF MOST BACKWARD CLASSES**Code****No.**

- 1 Ambalakarar
- 2 Andipandaram
- 2A Arayar (in Kanyakumari District)
- 3 Bestha, Siviari
- 4 Bhatraju (Other than Kshatriya Raju)
- 5 Boyar, Oddar
- 6 Dasari
- 7 Dommara
- 8 Eravallar (except in Kanyakumari District and Shenkottah Taluk of Tirunelveli District where the Community is a Scheduled Tribe)
- 9 Isaivellalar
- 10 Jambuvanodai
- 11 Jangam
- 12 Jogi
- 13 Kongu Chettiar (in Coimbatore and Erode Districts only)
- 14 Koracha
- 15 Kulala (including Kuyavar and Kumbarar)
- 16 Kunnuvar Mannadi
- 17 Kurumba, Kurumba Gounder
- 18 Kuruhini Chetty
- 18A Latin Catholic Christian Vannar (in Kanyakumari District)
- 19 Maruthuvar, Navithar, Mangala, Velakattalavar, Velakatalanair and Pronopakari
- 20 Mond Golla
- 21 Moundadan Chetty
- 22 Mahendra, Medara
- 23 Mutlakampatti
- 24 Narikoravar (Kuruvikars)
- 25 Nokkar
- 25A Panisaivan / Panisivan
- 26 Vanniakula Kshatriya (including Vanniyar, Vanniya, Vannia Gounder, Gounder or Kander, Padayachi, Palli & Agnikula Kshatriya)
- 27 Paravar (except in Kanyakumari District and Shenkottah Taluk of Tirunelveli District where the Community is Scheduled Caste)
- 27A Paravar converts to Christianity including the Paravar converts to Christianity of Kanyakumari District and Shenkottah Taluk in Tirunelveli District)
- 28 Meenavar (Parvatharajakulam, Pattanavar, Sembadavar) (including converts to Christianity)
- 29 Mukkuvar or Mukayar (including converts to Christianity)
- 30 Punnan Vettuva Gounder

**Code
No.**

- 31 Pannayar (other than Kathikarar in Kanyakumari District)
- 32 Sathatha Srivaishnava (including Sathani, Chattadi and Chattada Srivaishnava)
- 33 Sozhia Chetty
- 34 Telugupatty Chetty
- 35 Thottia Naicker (including Rajakambalam, Gollavar, Sillavar, Thockalavar, Thozhuva Naicker and Erragollar)
- 36 Thondaman
- 36A Thoraiyar (Nilgiris)
- 36B Thoraiyar (Plains)
- 37 Valaiyar (including Chettinad Valayars)
- 38 Vannar (Salaivai Thozhilalar) (including Agasa, Madivala, Ekali, Rajakula, Veluthadar & Rajaka) (except in Kanyakumari District and Shenkottah Taluk of Tirunelveli District where the Community is a Scheduled Caste)
- 39 Vettaikarar
- 40 Vettuva Gounder
- 41 Yogeesswarar

III (B) LIST OF DENOTIFIED COMMUNITIES

- 42 Attur Kilnad Koravars (Salem, Namakkal, Cuddalore, Villupuram, Ramanathapuram, Sivaganga and Virudhunagar Districts)
- 43 Attur Melnad Koravars (Salem and Namakkal District)
- 44 Appanad Kondayam Kottai Maravar (Sivaganga, Virudhunagar, Ramanathapuram, Madurai, Theni and Dindigul Districts)
- 45 Ambalakarar (Thanjavur, Nagapattinam, Tiruvarur, Tiruchirappalli, Karur, Perambalur and Pudukkottai Districts)
- 46 Ambalakkarar (Suriyanur, Tiruchirapalli District)
- 47 Boyas (Tiruchirapalli, Karur, Perambalur, Pudukkottai, The Nilgiris, Salem, Namakkal, Dharmapuri and Krishnagiri Districts)
- 48 Battu Turkas
- 49 C.K. Koravars (Cuddalore and Villupuram Districts)
- 50 Chakkala (Sivaganga, Virudhunagar, Ramanathapuram, Thanjavur, Nagapattinam, Thiruvarur, Pudukkottai, Tiruchirapalli, Karur, Perambalur, Madurai, Theni, Dindigul and the Nilgiris Districts)
- 51 Changyampudi Koravars (Vellore and Thiruvannamalai Districts)
- 52 Chettinad Valayars (Sivaganga, Virudhunagar and Ramanathapuram Districts)

**Code
No.**

- 53 Dombs (Pudukkottai, Tiruchirapalli, Karur and Perambalur Districts)
- 54 Dobba Koravars (Salem and Namakkal Districts)
- 55 Dommars (Thanjavur, Nagapattinam, Thiruvarur, Pudukkottai, Vellore and Thiruvannamalai Districts)
- 56 Donga Boya
- 57 Donga Ur. Korachas
- 58 Devagudi Talayaris
- 59 Dobbai Korachas (Tiruchirapalli, Karur Perambalur and Pudukkottai Districts)
- 60 Dabi Koravars (Thanjavur, Nagapattinam, Thiruvarur, Tiruchirapalli, Karur, Perambalur, Pudukkottai, Vellore and Thiruvannamalai Districts)
- 61 Donga Dasaris (Kancheepuram, Tiruvallur, Tiruchirapalli, Karur, Perambalur, Pudukkottai, Chennai, Salem and Namakkal Districts)
- 62 Gorrela Dodda Boya
- 63 Gudu Dasaris
- 64 Gandarvakottai Koravars (Thanjavur, Nagapattinam, Thiruvarur, Tiruchirapalli, Karur, Perambalur, Pudukkottai, Cuddalore and Villupuram Districts)
- 65 Gandarvakottai Kallars (Thanjavur, Nagapattinam, Thiruvarur and Pudukkottai Districts)
- 66 Inji Koravars (Thanjavur, Nagapattinam, Thiruvarur, Tiruchirapalli, Karur, Perambalur and Pudukkottai Districts)
- 67 Jogis (Kancheepuram, Tiruvallur, Chennai, Cuddalore, Villupuram, Vellore and Thiruvannamalai Districts)
- 68 Jambavanodai
- 69 Kaladis (Sivaganga, Virudhunagar, Ramanathapuram, Madurai, Theni, Dindigul, Thanjavur, Nagapattinam, Thiruvarur, Pudukkottai, Tiruchirapalli, Karur and Perambalur Districts)
- 70 Kal Oddars (Kancheepuram, Tiruvallur, Ramanathapuram, Sivaganga, Virudhunagar, Madurai, Theni, Dindigul, Pudukkottai, Thanjavur, Nagapattinam, Thiruvarur, Tiruchirapalli, Karur, Perambalur, Tirunelveli, Thoothukudi, Salem and Namakkal Districts)
- 71 Koravars (Kancheepuram, Tiruvallur, Ramanathapuram, Sivaganga, Virudhunagar, Pudukkottai, Thanjavur, Nagapattinam, Thiruvarur, Tiruchirapalli, Karur, Perambalur, Tirunelveli, Thoothukudi, Chennai, Madurai, Theni, Dindigul and The Nilgiris Districts)
- 72 Kalinji Dabikoravars (Thanjavur, Nagapattinam, Thiruvarur and Pudukkottai Districts)

**Code
No.**

- 73 Kootappal Kallars (Tiruchirapalli, Karur, Perambalur and Pudukkottai Districts)
- 74 Kala Koravars (Thanjavur, Nagapattinam, Thiruvarur, Tiruchirapalli, Karur, Perambalur and Pudukkottai Districts)
- 75 Kalavathila Boyas
- 76 Kepmaris (Kancheepuram, Tiruvallur, Pudukkottai, Tiruchirapalli, Karur and Perambalur Districts)
- 77 Maravars (Thanjavur, Nagapattinam, Thiruvarur, Pudukkottai, Ramanathapuram, Sivaganga, Virudhunagar, Tirunelveli and Thoothukudi Districts)
- 78 Monda Koravars
- 79 Monda Golla (Salem and Namakkal Districts)
- 80 Mutlakampatti (Tiruchirapalli, Karur, Perambalur and Pudukkottai Districts)
- 81 Nokkars (Tiruchirapalli, Karur, Perambalur and Pudukkottai Districts)
- 82 Nellorepet Oddars (Vellore and Thiruvannamalai Districts)
- 83 Oddars (Thanjavur, Nagapattinam, Thiruvarur, Tiruchirapalli, Karur, Perambalur, Pudukkottai, Madurai, Theni and Dindigul Districts)
- 84 Pedda Boyas (Tiruchirapalli, Karur, Perambalur and Pudukkottai Districts)
- 85 Ponnai Koravars (Vellore and Thiruvannamalai Districts)
- 86 Piramalai Kallars (Sivagangai, Virudhunagar, Ramanathapuram, Madurai, Theni, Dindigul, Pudukkottai, Thanjavur, Nagapattinam and Thiruvarur Districts)
- 87 Periya Suriyur Kallars (Tiruchirapalli, Karur, Perambalur, and Pudukkottai Districts)
- 88 Padayachi (Vellayan Kuppam in Cuddalore District and Tennore in Tiruchirapalli District)
- 89 Punnan Vettuva Gounder (Tiruchirapalli, Karur, Perambalur and Pudukkottai Districts)
- 90 Servai (Tiruchirapalli, Karur, Perambalur and Pudukkottai Districts)
- 91 Salem Melnad Koravars (Madurai, Theni, Dindigul, Coimbatore, Erode, Pudukkottai, Tiruchirapalli, Karur, Perambalur, Salem, Namakkal, Vellore and Thiruvannamalai Districts)
- 92 Salem Uppu Koravars (Salem and Namakkal Districts)
- 93 Sakkaraitthamada Koravars (Vellore and Thiruvannamalai districts)
- 94 Saranga Palli Koravars
- 95 Sooramari Oddars (Salem and Namakkal Districts)

**Code
No.**

- 96 Sembanad Maravars (Sivaganga, Virudhunagar and Ramanathapuram Districts)
- 97 Thalli Koravars (Salem and Namakkal Districts)
- 98 Telungapatti Chettis (Tiruchirapalli, Karur, Perambalur and Pudukkottai Districts)
- 99 Thottia Naickers (Sivaganga, Virudhunagar, Ramanathapuram, Kancheepuram, Tiruvallur, Thanjavur, Nagapattinam, Thiruvarur, Tiruchirapalli, Karur, Perambalur, Pudukkottai, Tirunelveli, Thoothukudi, Salem, Namakkal, Vellore, Thiruvannamalai, Coimbatore & Erode Districts)
- 100 Thogamalai Koravars or Kepmaris (Tiruchirapalli, Karur, Perambalur and Pudukkottai Districts)
- 101 Uppukoravars or Settipalli Koravars (Thanjavur, Nagapattinam, Thiruvarur, Pudukkottai, Madurai, Theni, Dindigul, Vellore and Thiruvannamalai Districts)
- 102 Urali Gounders (Tiruchirapalli, Karur, Perambalur and Pudukkottai Districts)
- 103 Wayalpad or Nawalpeta Korachas
- 104 Vaduvarpatti Koravars (Madurai, Theni, Dindigul, Ramanathapuram, Sivaganga, Virudhunagar, Tirunelveli, Thoothukudi, Tiruchirapalli, Karur, Perambalur and Pudukkottai Districts)
- 105 Valayars (Madurai, Theni, Dindigul, Tiruchirapalli, Karur, Perambalur, Pudukkottai, Erode and Coimbatore Districts)
- 106 Vettaikarar (Thanjavur, Nagapattinam, Thiruvarur and Pudukkottai Districts)
- 107 Vetta koravars (Salem and Namakkal District)
- 108 Varaganeri Koravars (Tiruchirapalli, Karur, Perambalur and Pudukkottai Districts)
- 109 Vettuva Gounder (Tiruchirapalli, Karur, Perambalur and Pudukkottai Districts)

IV. LIST OF BACKWARD CLASSES

- 1 Agamudayar including Thozhu or Thuluva Vellala
- 2 Agaram Vellan Chettiar
- 3 Alwar, Azhavar and Alavar (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 4 Servai (except Tiruchirappalli, Karur, Perambalur and Pudukkottai Districts)
- 5 Nulayar (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 6 Archakarai Vellala
- 7 Aryavathi (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 8 Ayira Vaisyar

**Code
No.**

- 9 Badagar
- 10 Billava
- 11 Bondil
- 12 Boyas (except Tiruchirappalli, Karur, Perambalur, Pudukkottai, The Nilgiris, Salem, Namakkal and Dharmapuri and Krishnagiri Districts)
Pedda Boyar (except Tiruchirappalli, Karur, Perambalur and Pudukkottai Districts)
Oddars (except Thanjavur, Nagapattinam, Thiruvarur, Tiruchirappalli, Karur, Perambalur, Pudukkottai, Madurai, Theni and Dindigul Districts) Kaloddars (except Kancheepuram, Tiruvallur, Ramanathapuram, Sivaganga, Virudhunagar, Madurai, Theni, Dindigul, Pudukkottai, Tiruchirappalli, Karur, Perambalur, Tirunelveli, Thoothukudi, Salem & Namakkal Districts) Nellorepet Oddars (except Vellore and Thiruvannamalai Districts) Sooramari Oddars (except Salem and Namakkal Districts)
- 13 Chakkala (except Sivaganga, Virudhunagar, Ramanathapuram, Thanjavur, Nagapattinam, Thiruvarur, Pudukkottai, Tiruchirappalli, Karur, Perambalur, Madurai, Theni, Dindigul and The Nilgiris Districts)
- 14 Chavalakarar (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 15 Chettu or Chetty (including Kottar Chetty, Elur Chetty, Pathira Chetty, Valayal Chetty, Pudukadai Chetty) (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 16 Chowdry
- 16A Converts to Christianity from Scheduled Castes irrespective of the generation of conversion (except the Paravar converts to Christianity of Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 16B C.S.I. formerly S.I.U.C. (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 17 Donga Dasaris (except Kancheepuram Tiruvallur, Tiruchirappalli, Karur, Perambalur, Pudukkottai, Chennai, Salem and Namakkal Districts)
- 18 Devangar, Sedar
- 19 Dombs (except Pudukkottai, Tiruchirappalli, Karur and Perambalur Districts) Dommars (except Thanjavur, Nagapattinam, Thiruvarur, Pudukkottai, Vellore and Thiruvannamalai Districts)

**Code
No.**

- 20 Enadi
- 21 Ezhavathy (in Kanyakumari Districts and Shenkottah Taluk of Tirunelveli District)
- 22 Ezhuthachar (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 23 Ezhuva (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 24 Gangavar
- 25 Gavara, Gavarai & Vadugar (Vaduvar) (other than Kamma, Kapu, Balija & Reddi)
- 26 Gounder
- 27 Gowda (including Gammala, Kalali and Anuppa Gounder)
- 28 Hegde
- 29 Idiga
- 30 Illathu Pillaimar, Illuvar, Ezhuvar & Illathar
- 31 Jhetty
- 32 Jogis (except Kancheepuram, Tiruvallur, Madurai, Theni, Dindigul, Cuddalore, Villupuram, Vellore and Thiruvannamalai Districts)
- 33 Kabbera
- 34 Kaikolar, Sengunthar
- 35 Kaladi (except Sivaganga, Virudhunagar, Ramanathapuram, Madurai, Theni, Dindigul, Thanjavur, Nagapattinam, Thiruvarur, Pudukkottai, Tiruchirappalli, Karur and Perambalur Districts)
- 36 Kalari Kurup including Kalari Panicker (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 37 Kalingi
- 38 Kallar
Easanattu Kallar
Gandharvakottai Kallars (except Thanjavur, Nagapattinam, Thiruvarur and Pudukkottai Districts)
Kottappal Kallars (except Pudukkottai, Tiruchirappalli, Karur and Perambalur Districts) Piramalai Kallars (except Sivaganga, Virudhunagar, Ramanathapuram, Madurai, Theni, Dindigul, Pudukkottai, Thanjavur, Nagapattinam and Thiruvarur Districts) Periyasooriyur Kallars (except Tiruchirappalli, Karur, Perambalur and Pudukkottai Districts)
- 39 Kallar Kula Thondaman
- 40 Kalveli Gounder
- 41 Kambar

**Code
No.**

- 42 Kammalar or Viswakarma, Viswakarmala (including Thattar, Porkollar, Kannar, Karumar, Kollar, Thacher, Kal Thacher, Kamsala and Viswabrahmin)
- 43 Kani, Kanisu, Kaniyar Panikkar
- 44 Kaniyala Vellalar
- 45 Kannada Saineegar, Kannadiyar (Through out the State) and Dasapalanjika (Coimbatore, Erode and the Nilgiris Districts)
- 46 Kannadiya Naidu
- 47 Karpooora Chettiar
- 48 Karuneegar (Seer Karuneegar, Sri Karuneegar, Sarattu Karuneegar, Kaikatti Karuneegar, Mathuvazhi Kanakkar, Sozhi Kanakkar & Sunnambu Karuneegar)
- 49 Kasukkara Chettiar
- 50 Katesar Pattamkatti
- 51 Kavuthiyar
- 52 Kerala Mudali
- 53 Kharvi
- 54 Khatrri
- 55 Kongu Vaishnava
- 56 Kongu Vellalars (including Vellala Gounder, NattuGounder, Narambukatti Gounder, Tirumudi Vellalar, Thondu Vellalar, Pala Gounder, Poosari Gounder, Anuppa Vellala Gounder, Padaithalai, Gounder, Chendalai Gounder, Pavalankatti Vellala Gounder, Palla Vellala Gounder, Sanku Vellala Gounder, & Rathinagiri Gounder)
- 57 Koppala Velama
- 58 Koteyar
- 59 Krishnanvaka (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 60 Kudikara Vellalar
- 61 Kudumbi (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 62 Kuga Vellalar
- 63 Kunchidigar
- 63A Latin Catholics except Latin Catholic Vannar in Kanyakumari District
- 63B Latin Catholics in Shenkottah Taluk of Tirunelveli District
- 64 Lambadi
- 65 Lingayat (Jangama)
- 66 Mahratta (NonBrahmin) (including Namadev Mahratta)

**Code
No.**

- 67 Malayar
- 68 Male
- 69 Maniagar
- 70 Maravars (except Thanjavur, Nagapattinam, Tiruvarur, Pudukkottai, Ramanathapuram, Sivaganga, Virudhunagar, Tirunelveli and Thoothukudi Districts) (including Karumaravars. Appanad Kondayamkottai Maravar (except Sivaganga, Virudhunagar, Ramanathapuram, Madurai, Theni and Dindigul Districts) and Sambanad Maravars (except Sivaganga, Virudhunagar and Ramanathapuram Districts))
- 71 Moondrumandai Enbathunulu (84) Ur. Sozhia Vellalar
- 72 Mooppan
- 73 Muthuraja, Muthuracha, Muttiriyar, Mutharaiyar
- 74 Nadar, Shanar & Gramani including Christian Nadar, Christian Shanar and Christian Gramani
- 75 Nagaram
- 76 Naikkar (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 77 Nangudi Vellalar
- 78 Nanjil Mudali (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 79 Odar (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 80 Odiya
- 81 Oottruvalanattu Vellalar
- 82 O.P.S. Vellalar
- 83 Ovachar
- 84 Paiyur Kotta Vellalar
- 85 Pamulu
- 86 Panar (except in Kanyakumari District and Shenkottah Taluk of Tirunelveli District where the Community is a Scheduled Caste)
- 86A Pandiya Vellalar
- 87 Omitted
- 88 Kathikarar in Kanyakumari District
- 89 Pannirandam Chettiar or Uthama Chettiar
- 90 Parkavakulam (including Surithimar Nathamar, Malayamar, Mooppanar & Nainar)
- 91 Perike (including Perike Balija)
- 92 Perumkollar (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 93 Podikara Vellalar
- 94 Pooluva Gounder
- 95 Poraya

**Code
No.**

- 96 Pulavar (in Coimbatore and Erode Districts)
- 97 Pulluvar or Pooluvar
- 98 Pusala
- 99 Reddy (Ganjam)
- 100 Sadhu Chetty (including Telugu Chetty Twenty four manai Telugu Chetty)
- 101 Sakkaravar or Kavathi (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 102 Salivagana
- 103 Saliyar, Padmasaliyar, Pattusaliyar, Pattariyar and Adhaviyar
- 104 Savalakkarar
- 105 Senaithalaivar, Senaikudiyar and Ilaivaniar
- 105A Serakula Vellalar
- 106 Sourashtra (Patnulkarar)
- 107 Sozhia Vellalar (including Sozha Vellalar. Vetrilaikarar, Kodikalkarar and Keeraikarar)
- 108 Srisayar
- 109 Sundaram Chetty
- 110 Thogatta Veerakshatriya
- 111 Tholkollar (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 112 Tholuva Naicker and Vetakara Naicker
- 113 Omitted
- 114 Thoriyar
- 115 Ukkirakula Kshatriya Naicker
- 116 Uppara, Uppillia and Sagara
- 117 Urali Gounder (except Tiruchirapalli Karur, Perambalur and Pudukkottai Districts) and Orudaya Gounder or Oorudaya Gounder (in Madurai and Theni, Dindigul, Coimbatore, Erode, Tiruchirapalli, Karur, Perambalur, Pudukkottai, Salem and Namakkal Districts)
- 118 Urikkara Nayakkar
- 118A Virakodi Vellala
- 119 Vallambar
- 119A Vallanattu Chettiar
- 120 Valmiki
- 121 Vaniyar, Vania Chettiar (including Gandla, Ganika, Telikula and Chekkalar)
- 122 Veduvar and Vedar (except in Kanyakumari District and Shenkottah Taluk of Tirunelveli District Where the Community is a Scheduled Castes)
- 123 Veerasaiva (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)

**Code
No.**

- 124 Velar
- 125 Vellan Chettiar
- 126 Veluthodathu Nair (in Kanyakumari District and Shenkottah Taluk of Tirunelveli District)
- 127 Vokkaligar (including Vakkaligar, Okkaligar, Kappaliyar, Kappiliya, Okkaliga Gowda, Okkaliya-Gowder, Okkaliya-Gowda, Okkaliya Gowda)
- 128 Wynad Chetty (The Nilgiris District)
- 129 Yadhava (including Idaiyar, Telugu Speaking Idaiyar known as Vaduga Ayar or Vaduga Idaiyar or Golla and Asthanthra Golla)
- 130 Yavana
- 131 Yerukula
- 131A Converts to Christianity from any Hindu Backward Classes Community or Most Backward Classes Community (except the Converts to Christianity from Meenavar, Parvatharajakulam, Pattanavar, Sembadavar, Mukkuvar or Mukayar and Paravar) or Denotified Communities
- 132 Orphans and destitutes children who have lost their Parents before reaching the age of ten and are destitutes; and who have nobody else to take care of them either by law or custom; and also who are admitted into any of the Schools or orphanages run by the Government or recognised by the Government.

V. LIST OF BACKWARD CLASSES MUSLIMS

- 1 Ansar
- 2 Dekkani Muslims
- 3 Dudekula
- 4 Labbais including Rowthar and Marakayar (whether their spoken language is Tamil or Urdu)
- 5 Mapilla
- 6 Sheik
- 7 Syed

CERTIFICATE No. I

Name :

Medical Certificate for Orthopaedically Differently Abled Person (TO BE ISSUED BY DISTRICT MEDICAL BOARD)

Certified, that the District Medical Board of (City) have this day of 2012 examined the Candidate whose particulars are given below.

- | | | |
|--|---|---|
| 1. Name of the Candidate | : | |
| 2. Father's Name | : | |
| 3. Sex | : | |
| 4. Approximate Age | : | |
| 5. Identification Marks | : | 1.
2. |
| 6. Whether audilogically / visually handicapped
(if yes for either one or both medical certificate / s for
fitness from the respective specialist /s to be produced) | : | |
| 7. Nature of Orthopaedic Handicap | : | |
| 8. Extent of permanent disability in percentage | : | |
| 9. Whether the Candidate fulfils the following Standards
and may be considered for admission to undergo studies
in Engineering College / Technical Institution | : | |
| (a) Normal Blood Pressure | : | Yes / No |
| (b) Mentally Normal | : | Yes / No |
| (c) Independent in ambulation with or without
calipers but without any support | : | Yes / No |
| (d) Good standing balance with or without calipers
but without any support | : | Yes / No |
| (e) Hand function within normal limits without any aid | : | Yes / No |
| (f) Good control over bowel and bladder | : | Good / Not good |
| (g) Is the disability non-progressive | : | Yes / No |
| 10. Whether eligible for consideration under Physically Challenged Quota | : | Yes / No |
| 11. Whether the candidate is physically and mentally fit to be considered
for admission in Engineering College / Technical Institution | : | Yes /No (If no please specify
reasons) |

Space for affixing
recent Passport size
photograph of the
candidates duly
attested by chairman
District Medical
Board

Signature of the Applicant

Chairman, District Medical Board

Members

Date with seal of
Medical Board

1.
2.

Note : Candidates with permanent Physical Impairment 40% and above are eligible for consideration under reserved quota.

CERTIFICATE No. II

Name:

Medical Certificate for Hearing Impaired (To be issued by the District Medical Board)

Certified, that the District Medical Board of (City) have this day of 2012 examined the candidate whose particulars are given below.

1. Name of the Candidate :
2. Father's Name :
3. Sex :
4. Age :
5. Identification Marks 1)
2)
6. Whether Orthopaedically / Visually handicapped : Yes / No
(If yes for either one or both medical certificate /s
for fitness from the respective specialist /s to be produced)
7. Nature of hearing loss and extent of disability : RE. LE.
a) Pure tone average db
b) Speech discrimination score
8. a) Whether a suitable hearing aid to be used : Yes / No
b) Is the impairment non-progressive : Yes / No
9. Whether eligible for consideration under Differently Abled persons quota : Yes / No
10. Whether the candidate is physically and mentally fit to be considered for admission in engineering College / Technical institution : Yes / No (if no please specify reasons)

Space for affixing recent Passport size photograph of the candidates duly attested by District Medical Board

Signature of the Applicant

Chairman, District Medical Board

**Date with seal of
Medical Board**

Member
1.
2.

Note: Candidates with hearing ability 40 db and above only in the better ear with speech discrimination score of 50% and above are eligible for consideration under reserved quota.

CERTIFICATE No. III

Name:

Medical Certificate for Visually Impaired (To be issued by the District Medical Board)

Certified, that the District Medical Board of (City) have this day of2012 examined the candidate whose particulars are given below:

1. Name of the Candidate :
2. Father's Name :
3. Sex :
4. Age :
5. Identification Marks 1) 2).....
6. Whether Orthopaedically / audilogically handicapped : Yes / No
(If yes for either one or both medical certificate /s for fitness from the respective Board has to be produced)
7. Low vision: (Person with low vision means a person with impairment of vision of less than 6/18 to 6/60 with best correction in the better eye or impairment of field in any one of the following categories)
 - a) Reduction of fields less than 50 degree :
 - b) Heminaopia with macular involvement :
 - c) Attitudinal defect involvement lower fields :
8. Categories of Visual Disability
(Please choose the appropriate box)

Space for affixing recent Passport size photograph of the candidates duly attested by District Medical Board

Category	Better eye	Worse eye	%age impairment	Tick (as Applicable)
Category O	6/9 – 6/18	6/24 to 6/36	20%	
Category I	6/16 – 6/36	6/20 to Nil	40%	
Category II	6/40 – 4/60 or field of vision 10° - 20°	3/60 to Nil	75%	
Category III	3/60 to 1/60 or field of vision 10°	F.C at 1 ft. to Nil	100%	
Category IV	F.C at 1 ft. to Nil or field of vision 10°	F.C at 1 ft. to Nil	100%	
One eyed persons	6/6	F.C at 1 ft. to Nil or field of vision 10°	30%	

(ONE EYED) with normal vision are not considered as Note: F.C. means Finger Count

9. Whether eligible for consideration under Differently Abled Persons quota : Yes / No
10. Whether the candidate is physically and mentally fit to be considered for admission in engineering College / Technical institution : Yes / No
(if no, please specify reasons)

Signature of the Applicant

Chairman, District Medical Board

Date with seal of Medical Board

Member
1.
2.

Note: Candidates with low vision of 40% Impairment and above are considered as disabled and are eligible for consideration under reserved quota.