

ANDHRA PRADESH PUBLIC SERVICE COMMISSION: HYDERABAD

NOTIFICATION NO. 54/2011 , Dt. 31/12/2011

**MANAGER (ENGINEERING) IN HYDERABAD METROPOLITAN WATER SUPPLY AND
SEWERAGE BOARDS
(GENERAL RECRUITMENT)**

PARA – 1:

Recruitment applications are invited On-line through the proforma Application to be made available on WEBSITE (www.apspsc.gov.in) from **29/05/2012 to 29/06/2012 (Note: 27/06/2012 is the last date for payment of fee)** for recruitment to the post of **Manager (Engineering) in Hyderabad Metropolitan Water Supply and Sewerage Board.**

The desirous eligible Candidates may apply ON-LINE by satisfying themselves with the terms and conditions of this recruitment. The details are as follows:-

Post Code	Name of the Post	No. of Vacancies	Age as on 01/07/2011 Min. Max.	Scale of Pay Rs.
01	Manager (Engineering) in Hyderabad Metropolitan Water Supply and Sewerage Board (Civil Engg. branch)	**59	18-36*	16,150-42,590/-
02	Manager (Engineering) in Hyderabad Metropolitan Water Supply and Sewerage Board (Mechanical Engg. branch)	**07		
03	Manager (Engineering) in Hyderabad Metropolitan Water Supply and Sewerage Board (Electrical Engg. branch)	**08		
04	Manager (Engineering) in Hyderabad Metropolitan Water Supply and Sewerage Board (Electronics & Communication Engg. branch)	05		
05	Manager (Engineering) in Hyderabad Metropolitan Water Supply and Sewerage Board (Computer Science / Information Technology branch)	05		
	Total	**84		

*Corrigendum, Dated:- 03/01/2012 in terms of G.O. Ms. No. 1, GA(Ser.A), Dept., Dt. 02/01/2012.

**Additional Vacancies added, as per orders, Dt. 18/05/2012.

(The details of vacancies viz., Community, Zone and Gender wise (General / Women) may be seen at Annexure-I)

NOTE:

1. THE APPLICANTS ARE REQUIRED TO GO THROUGH THE USER GUIDE AND DECIDE THEMSELVES AS TO THEIR ELIGIBILITY FOR THIS RECRUITMENT CAREFULLY BEFORE APPLYING AND ENTER THE PARTICULARS COMPLETELY ONLINE. ALL CANDIDATES HAVE TO PAY **RS. 100/- (RUPEES ONE HUNDRED ONLY)** TOWARDS APPLICATION PROCESSING FEE AND ALL THOSE WHO ARE NOT EXEMPTED FROM PAYMENT OF FEE HAVE ALSO TO PAY **RS. 120/- (RUPEES ONE HUNDRED AND TWENTY ONLY)** TOWARDS EXAMINATION FEE.
2. APPLICANT MUST COMPULSORILY FILL-UP ALL RELEVANT COLUMNS OF APPLICATION AND SUBMIT APPLICATION THROUGH WEBSITE ONLY. THE PARTICULARS MADE AVAILABLE IN THE WEBSITE SHALL BE PROCESSED THROUGH COMPUTER AND THE ELIGIBILITY DECIDED IN TERMS OF NOTIFICATION AND CONFIRMED ACCORDINGLY.
3. THE APPLICATIONS RECEIVED ONLINE IN THE PRESCRIBED PROFORMA AVAILABLE IN THE WEBSITE AND WITHIN THE TIME SHALL ONLY BE CONSIDERED AND THE COMMISSION WILL NOT BE HELD RESPONSIBLE FOR ANY KIND OF DISCREPANCY.
4. APPLICANTS MUST COMPULSORILY UPLOAD HIS/HER OWN SCANNED PHOTO AND SIGNATURE THROUGH J.P.G FORMAT.
5. THE APPLICANTS SHOULD NOT FURNISH ANY PARTICULARS THAT ARE FALSE, TAMPERED, FABRICATED OR SUPPRESS ANY MATERIAL INFORMATION WHILE MAKING AN APPLICATION THROUGH WEBSITE.
6. **IMPORTANT:-** HAND WRITTEN/TYPED/PHOTOSTAT COPIES/PRINTED APPLICATION FORM WILL NOT BE ENTERTAINED.

7. ALL THE ESSENTIAL CERTIFICATES ISSUED BY THE COMPETENT AUTHORITY SHALL COMPULSORILY BE KEPT WITH THE APPLICANTS TO PRODUCE AS AND WHEN REQUIRED, ON THE DAY OF VERIFICATION DATE ITSELF FOR VERIFICATION. IF CANDIDATES FAIL TO PRODUCE THE SAME, THE CANDIDATURE IS REJECTED / DISQUALIFIED WITHOUT ANY FURTHER CORRESPONDENCE.

The following blank formats (Proforma) are available in the Commission's Website (www.apspsc.gov.in) The candidates can use, if required.

- i). Community, Nativity and Date of Birth Certificate
- ii). Declaration by the Un-Employed
- iii). School Study Certificate
- iv). Certificate of Residence
- v). a) Medical Certificate for the Blind
b) Certificate of Hearing Disability and Hearing Assessment
c) Medical Certificate in respect of Orthopedically Handicapped Candidates
- vi). Creamy Layer Certificate

IMPORTANT NOTE: Distribution of vacancies among roster points is subject to variation and confirmation from the Unit Officer/ Appointing authority.

NOTE ON IMPORTANT LEGAL PROVISIONS GOVERNING THE RECRUITMENT PROCESS:

1. Vacancies: The recruitment will be made to the vacancies notified only. There shall be no waiting list as per G.O.Ms.No. 81 General Administration (Ser.A) Department, Dated 22/02/1997 and Rule 6 of APPSC Rules of procedure. In any case, no cognisance will be taken by Commission of any vacancies arising or reported after the completion of the selection and recruitment process or the last date as decided by the Commission as far as this Notification is concerned, and these will be further dealt with as per G.O. & Rule cited above.
2. The Recruitment will be processed as per this Notification and also as per the Rules and Instructions issued by the Government and also as decided by the Commission from time to time in terms of respective Special Rules/Adhoc Rules governing the Recruitment and G.O.Rt.No.1365, M.A&U.D.(C) Department, dated 17/11/2007, B.P.No.16, HMWS&SB Service Regulations, dated 30/01/1992, B.P. No. 134/4434 A.W. Dt. 21/09/2011, Unit Officer Lr.No. 7438/B1/2006, dated 23/11/2007, Letter No. 7438/B1/2006, dated 19/03/2008, Lr. No. 7438/B1/2011, Dt. 31/12/2011, G.O. Rt.No.1197, Municipal Administration and Urban Development (C) Dept., dt. 19/09/2011 and as per Government orders issued from time to time, and other related G.Os, Rules etc. applicable in this regard.
3. Rules: All are informed that the various conditions and criterion prescribed herein are governed by the General Rules of A.P. State and Subordinate Service Rules, 1996 read with the relevant Special Rules applicable to any particular service in the departments. Any guidelines or clarification is based on the said Rules, and, in case of any necessity, any matter will be processed as per the relevant General and Special Rules cited as in force.
4. The Commission is empowered under the provisions of Article 315 and 320 of the Constitution of India read with relevant laws, rules, regulations and executive instructions and all other enabling legal provisions in this regard to conduct examination for appointment to the posts notified herein, duly following the principle of order of merit as per Rule 3(vi) of the APPSC Rules of Procedure read with relevant statutory provisions and ensuring that the whole recruitment and selection process is carried out with utmost regard to maintain secrecy and confidentiality so as to ensure that the principle of merit is scrupulously followed. A candidate shall be disqualified for appointment, if he himself or through relations or friends or any others has canvassed or endeavored to enlist for his candidature, extraneous support, whether from official or non-official sources for appointment to this service.
5. Zonal/Local: In terms of Para 8 of the G.O., A.P. Public Employment (Organization of Local Cadres and Regulation of Direct Recruitment) Order, 1975 (G.O.Ms.No. 674, G.A. (SPF-A) Dept., dated: 20/10/1975) read with G.O.Ms.No.124, General Administration (SPF-A) Department, dated: 07/03/2002, and other orders/instructions issued by the Government in this regard 60% of posts are to be filled by local cadre candidates and remaining 40% of posts are open for which local and non-local are to be considered on the basis of combined merit list.
6. The persons already in Government Service/ Autonomous bodies/ Government aided institutions etc., whether in permanent or temporary capacity or as work charged employees are however required to inform in writing, their Head of Office/ Department, that they have applied for this recruitment.

7. The Commission is also empowered to invoke the penal provisions of the A.P. Public Examinations (Prevention of Malpractices and Unfair means) Act 25/97 for matters connected therewith or incidental thereto in respect of this Notification.
8. **Caste & Community:** Community Certificate issued by the competent authority in terms of G.O.Ms No. 58, SW (J) Dept., dt: 12/5/97 should be submitted at appropriate time. As per General Rules for State and Subordinate Service Rules, Rule -2(28) Explanation: No person who professes a religion different from Hinduism shall be deemed a member of Schedule Caste. **BCs, SCs & STs belonging to other States are not entitled for reservation. Candidates belonging to other States shall pay the prescribed fee of Rs. 120/- (One hundred and Twenty only) through Challan and upload as indicated at Para-4. Otherwise such applications will not be considered and no correspondence on this will be entertained.**
9. Reservation and eligibility in terms of General Rule 22 & 22 (A) of A.P. State and Subordinate Service Rules are applicable.
10. Reservation to Disabled persons is subject to their eligibility to any of the above category of posts and shall be subject to Special Rules/Adhoc Rules governing the posts. The required extent of deformity and the genuineness of the Medical Certificate and in the case of ambiguity or doubt, the same shall be referred to the Appellate Medical Boards as per the instructions of the Government.
11. The Reservation to Women will apply as per General Rules and/or special rules.
12. Reservation to BC-E group will be subject to the adjudications of the litigation before the Honorable Courts and orders from the Government.
13. Government have issued orders in G.O. Ms. No. 3, Backward Classes Welfare(C-2) Department, dated 4/4/2006, laying down the criteria to determine Creamy Layer among Backward Classes in order to exclude from the provisions of reservations. Government of Andhra Pradesh has adopted all the criteria to determine the Creamy Layer among Backward Classes as fixed by the Government of India. In view of the Government orders, in G.O. Ms. No. 3, Backward Classes Welfare(C-2) Department, dated 4/4/2006, **the candidates claiming as belong to Backward Classes have to produce a Certificate regarding their exclusion from the Creamy Layer from the competent authority (Tahasildar). Certificate excluding from Creamy Layer has to be produced at an appropriate time. B.C. Candidates whose Parent's income is less than 4.00 Lakhs per annum come under Non-Creamy Layer.** In case of failure to produce the same on day of verification, the Candidature is rejected without further correspondence.
14. The Candidates who have obtained Degrees through Open Universities / Distance Education mode are required to have recognition of Joint Committee i.e., AICTE, UGC, DEC and IGNOU. Unless such Degrees had been recognised by the D.E.C. they will not be accepted for purpose of Educational Qualification. The onus in case of doubt, of Proof of recognition by the D.E.C. that their Degrees / Universities have been recognised, rests with the Candidate.

PARA-2: EDUCATIONAL QUALIFICATIONS:

Applicants must possess the qualifications from a recognized University as detailed below or equivalent thereto, subject to various specifications in the relevant service rules and as indented by the department as on the date of notification.

Post Code	Name of the Post	Educational Qualifications
01	Manager (Engineering) in Hyderabad Metropolitan Water Supply and Sewerage Board (Civil Engg. branch)	Must possess a Degree in Engineering in the Concerned (Civil / Mechanical/ Electrical/ Electronics & Communication / Computer Science / Information Technology) Engineering Branch of a University or an equivalent qualification as recognized by the U.G.C. and AICTE.
02	Manager (Engineering) in Hyderabad Metropolitan Water Supply and Sewerage Board (Mechanical Engg. branch)	
03	Manager (Engineering) in Hyderabad Metropolitan Water Supply and Sewerage Board (Electrical Engg. branch)	
04	Manager (Engineering) in Hyderabad Metropolitan Water Supply and Sewerage Board (Electronics & Communication Engg. branch)	
05	Manager (Engineering) in Hyderabad Metropolitan Water Supply and Sewerage Board (Computer Science / Information Technology branch)	

PARA-3 AGE: Minimum 18 years & Maximum 36* years as on 01/07/2011.

N.B.: No person shall be eligible if less than 18 years and is more than 36* of years.

NOTE: The upper age limit prescribed above is relaxable in the following cases:

Sl. No.	Category of candidates	Relaxation of age permissible
1.	SC/ST and BCs	5 Years
2.	Physically Handicapped persons	10 Years
3.	Board Employees (who are possessing educational qualifications)	No Age Limit.

PARA-4: (a) FEE: (Remittance of Fee) Each applicant must pay **Rs. 100/- (RUPEES ONE HUNDRED ONLY)** towards Application Processing Fee and Examination Fee **RS.120/- (RUPEES ONE HUNDRED AND TWENTY ONLY)** (if Candidates are not exempted from payment of Fee). Payment of **Rs. 100/- (RUPEES ONE HUNDRED ONLY)** towards application processing fee is compulsory for all Applicants.

b) Mode of Payment of Fee:

I Step:- The Candidate has to logon to the WEBSITE (www.apspsc.gov.in) and enter his/her Basic Personal Details like Name, Father's Name, Date of Birth, and Community.

II Step:- Immediately on entering the above details the Applicant will get (downloadable)- Challan Form to pay the Fee at AP Online centers /State Bank of India.

III Step:- The Applicant should pay the prescribed Fee in any one of the A.P. Online centers / State Bank of India and obtain Fee paid challan with Journal Number in the first instance.

IV Step:- **On the next working day** after payment of Fee the Applicant should again visit WEBSITE and enter the Journal Number to get the format of Application. The applicant has to invariably fill all the columns in the Application and should submit ON-Line.

NOTE ON EXEMPTIONS: The following category of candidates are exempted from payment of fee:

- SC, ST, BC & PH.
- Families having Household Supply White Card issued by Civil Supplies Department, A.P. Government. (Residents of Andhra Pradesh)
- Un employed youth in the age group of 18 to 36* years as per G.O.Ms.No. 439, G.A.(Ser.A) Dept., dated: 18/10/1996 should submit declaration at an appropriate time to the Commission.
- Applicants belonging to the categories mentioned above (except Physically Handicapped Persons) hailing from other States are not entitled for exemption from payment of fee and not entitled for claiming any kind of reservation.

PARA-5: PROCEDURE OF SELECTION:

THE SELECTION OF CANDIDATES FOR APPOINTMENT TO THE POSTS WILL BE MADE BY WRITTEN EXAMINATION (OBJECTIVE TYPE) FOR ELIGIBLE CANDIDATES.

THE FINAL SELECTION OF THESE POSTS WILL BE BASED ON THE WRITTEN EXAMINATION.

1. The minimum qualifying marks for selection are OCs 40%, BCs 35% SCs, STs and PHs 30% or as per rules. The minimum qualifying marks are relaxable in the case of SC/ST/BC/PH on the discretion of the Commission.

2. The candidates will be selected and allotted to Service/ Department as per their rank in the merit list and as per zonal preference for allotment of candidates against vacancies and for the vacancies available.

N.B.: Mere securing minimum qualifying marks does not vest any right in a candidate for being considered for selection.

3. The appearance in all the papers at the Written Examination as per rules is compulsory. Absence in any of the papers will automatically render his candidature as disqualified.

4. Candidates have to produce Original documents and other particulars **on the day of verification date itself** for verification as and when required and called for. If **candidate fails to produce the certificates if any one, and** the particulars furnished in the Application do not tally with the Original documents produced by the candidate, the candidature will be rejected/**disqualified without any further correspondence**. As candidature for the recruitment is processed through Computer/Electronic devices based on the particulars furnished in the Application Form, the candidate is advised to fill in all the relevant particulars carefully.

5. While the Commission calls for preference of candidates in respect of posts, zones etc., in the application form, it is hereby clarified that the said preferences are only indicative for being considered to the extent possible but not binding or limiting the Commission's powers enjoyed under Article 315 and 320 of the Constitution of India. Therefore, the Commission has

the power to assigning a successful candidate to any of the notified posts for which he is considered by them to be qualified and eligible, subject to fulfilling the selection criterion. Mere claim of preference for any Zone for allotment against vacancy does not confer a right to selection for that Zone in particular or any Zone in general.

6. The appointment of selected candidates will be subject to their being found medically fit in the appropriate medical classification, and if he/she is of sound health, active habits free from any bodily defect or infirmity.

PARA-6: RESERVATION TO LOCAL CANDIDATES:

Reservation to the Local candidates is applicable as provided in the Rules and as amended from time to time as in force on the date of notification. The candidates claiming reservation as Local candidates should obtain the required Study certificates (from IV Class to X Class or SSC) OR Residence Certificate in the Proforma only for those candidates who have not studied in any Educational Institutions as the case may be. The relevant certificates may be got ready with authorized signature and kept with the candidates to produce as and when required.

DEFINITION OF LOCAL CANDIDATE:

- (A) (i) "LOCAL CANDIDATE" means a candidate for direct recruitment to any post in relation to that Local areas where he/she has studied in Educational Institution(s) for not less than four consecutive academic years prior to and including the year in which he/she appeared for S.S.C or its equivalent examination. If however, he/she has not studied in any educational institution during the above four years period, it is enough if he/she has resided in that area which is claimed as his/her local area during the above said period.
- (ii) In case Candidate does not fall within the scope of above then, if he/she has studied for a period of not less than seven years prior to and inclusive of the year in which he/she has studied SSC or its equivalent, he/she will be regarded as local candidate on the basis of the maximum period out of the said period of seven years AND where the period of his/her study in two or more local areas or equal such local area where he/she has studied last in such equal periods will be taken for determining the local candidature. Similarly, if he/she has not studied during the above said period in any Educational Institution(s) the place of residence during the above period will be taken into consideration and local candidature determined with reference to the maximum period of residence or in the case of equal period where he/she has resided last in such equal periods.
- (iii) If the claim for local candidature is based on study, the candidate is required to produce a certificate from the Educational Institution(s) where he/she has studied during the said 4/7-year period. If, however, it is based on residence, a certificate should be obtained from an officer of the Revenue Department not below the rank of a Mandal Revenue Officer in independent charge of a Mandal.
- (iv) If, however, a candidate has resided in more than one Mandal during the relevant four/seven years period but within the same District or Zone as the case may be separate certificates from the Mandal Revenue Officers exercising jurisdiction have to be obtained in respect of different areas.

NOTE:

- (A) Single certificate, whether of study or residence would suffice for enabling the candidate to apply as a "**LOCAL CANDIDATE**".
- (B) RESIDENCE CERTIFICATE WILL NOT BE ACCEPTED, IF A CANDIDATE HAS STUDIED IN ANY EDUCATIONAL INSTITUTION UPTO S.S.C. OR EQUIVALENT EXAMINATION, SUCH CANDIDATES HAVE TO PRODUCE STUDY CERTIFICATES INVARIABLY. THE CANDIDATES, WHO ACQUIRED DEGREE FROM OPEN UNIVERSITIES WITHOUT STUDYING SSC/ MATRICULATION OR EQUIVALENT IN EDUCATIONAL INSTITUTIONS, HAVE TO SUBMIT RESIDENCE CERTIFICATE ONLY. EDUCATIONAL INSTITUTIONS MEANS A RECOGNIZED INSTITUTION BY THE GOVERNMENT/UNIVERSITY/COMPETENT AUTHORITY.
- (C) Candidates are advised to refer provisions of the PRESIDENTIAL ORDER 1975 in this regard
- (D) Each of the following Zones comprises the Districts mentioned against each Zone.

Zones:

1. Srikakulam, Visakhapatnam and Vizianagaram. (SKM, VSP, VZM)
2. East Godavari, West Godavari and Krishna. (EG, WG, KST)
3. Guntur, Prakasam and Nellore. (GNT, PKM, NLR)
4. Chittoor, Cuddapah, Anantapur and Kurnool. (CTR, CDP, ATP, KNL)
5. Adilabad, Karimnagar, Warangal and Khammam. (ADB, KRMN, WGL, KMM)

6. Hyderabad, Ranga Reddy, Nizamabad, Mahaboobnagar, Medak and Nalgonda. (HYD, RRD, NZB, MBNR, MDK, NLG)

PARA-7: SCHEME OF EXAMINATION:- The Scheme & Syllabus for the examination has been shown in Annexure-II.

PARA-8: HOW TO APPLY:

A) **HOW TO UPLOAD THE APPLICATION FORM:**

- i) The Applicants have to read the User Guide for Online Submission of Applications and then proceed further.

I Step: The Candidate has to logon to the WEBSITE (www.apspsc.gov.in) and enter his/her Basic Personal Details like Name, Father's Name, Date of Birth, and Community.

II Step: Immediately on entering the above details the Applicant will get (downloadable) - Challan Form to pay the Fee at AP Online centers /State Bank of India.

III Step: The Applicant should pay the prescribed Fee in any one of the A.P. Online centers / State Bank of India and obtain Fee paid challan with Journal Number in the first instance.

IV Step: **On the next working day** after payment of Fee the Applicant should again visit WEBSITE and enter the Journal Number to get and fill the format of Application and should submit ON-LINE.

V Step: Affix your recent Colour Passport Size Photograph on a White Paper and then sign below the photograph with Black Pen. Scan the above Photo and Signature and Upload in the appropriate space provided (JPG Format) in Application Form.

VI Step: The applicants have to invariably fill all the relevant columns in the Application and should submit ON-LINE.

- ii) **Hand written/ Typed/ Photostat copies/ outside printed Application Form will not be accepted and liable for rejection.**

iii) Only applicants willing to serve anywhere in the Andhra Pradesh should apply.

iv) For any problems related to Online submission and downloading of Hall-Tickets please contact 040-23557455 ((Call Time: 9.30 A.M to 1.00 P.M & 1.30 P.M to 5.30 P.M) or mail to appschelpdesk@gmail.com.

NOTE:

1. The Commission is not responsible, for any discrepancy in submitting through Online. The applicants are therefore, advised to strictly follow the instructions and User guide in their own interest.
2. The particulars furnished by the applicant in the Application Form will be taken as final, and data entry processed, based on these particulars only by Computer. Candidates should, therefore, be very careful in Uploading / Submitting the Application Form Online.
3. INCOMPLETE/INCORRECT APPLICATION FORM WILL BE SUMMARILY REJECTED. THE INFORMATION IF ANY FURNISHED BY THE CANDIDATE SUBSEQUENTLY WILL NOT BE ENTERTAINED BY THE COMMISSION UNDER ANY CIRCUMSTANCES. APPLICANTS SHOULD BE CAREFUL IN FILLING-UP THE APPLICATION FORM AND SUBMISSION. IF ANY LAPSE IS DETECTED DURING THE SCRUTINY, THE CANDIDATURE WILL BE REJECTED EVEN THOUGH HE/SHE COMES THROUGH THE FINAL STAGE OF RECRUITMENT PROCESS OR EVEN AT A LATER STAGE.
4. Before Uploading/Submission Application Form, the Candidates should carefully ensure his/her eligibility for this examination. NO RELEVANT COLUMN OF THE APPLICATION FORM SHOULD BE LEFT BLANK, OTHERWISE APPLICATION FORM WILL NOT BE ACCEPTED.
5. The candidates should carefully decide about the choice for CENTRE for the examination, which is taken as final. If any candidate appears at a centre/ Examination venue other than one allotted by the Commission, the answer sheets of such candidates shall not be valued and liable for invalidation.
6. The Commission reserves the right to create centre(s) for examination and also to call the Candidates for the test at any other centre.

PARA-9: CENTRES FOR THE WRITTEN EXAMINATION:

1. The Written Examination will be held at Hyderabad centre only.
2. The Written Examination will be held on **29/07/2012**.

PARA-10: INSTRUCTIONS TO CANDIDATES:

- 1) The candidates must note that his/her admission to the examination is strictly provisional. The mere fact that an Admission has been issued to him/her does not imply that his/her candidature has been finally cleared by the Commission or that the entries made by the candidate in his/her application have been accepted by the Commission as true and correct. The candidates have to be found suitable after verification of original certificates; and other eligibility criteria. The Applicants have to upload the his/her scanned recent colour passport photo and signature to the Application Form. Failure to produce the same photograph, if required, at the time of interview/ verification, may lead to disqualification. Hence the candidates are advised not to change their appearance till the recruitment process is complete.
- 2) The candidates should go through the instructions given on the cover page of test booklet and carefully write his/her Register Number, Subject / Subject Code, Booklet Series, Name of the Examination Centre etc., in the Answer Sheet, which will be provided to him/her in the examination hall.
- 3) Since the answer sheets are to be scanned (valued) with Optical Mark Scanner system, the candidates have to USE BALL POINT PEN (BLUE/BLACK) ONLY FOR MARKING THE ANSWERS. The candidates will be supplied OMR Sheet consists of two copies i.e., the Original Copy (Top Sheet) and Duplicate Copy (Bottom Sheet). The candidate is required to use Ball Point Pen (Blue or Black) for filling the relevant blocks in the OMR Sheet including bubbling the answers. After writing the examination the candidate has to handover the original OMR sheet (Top Sheet) to the invigilator in the examination hall, if any candidate takes away the original OMR Sheet (Top Sheet) his/her candidature will be rejected. However the candidate is permitted to take away the duplicate (Bottom Sheet) OMR Sheet for his/her record. The candidates should bring Ball Point Pen (Blue/Black and smooth writing pad) to fill up relevant columns on the Answer Sheet. The candidate must ensure encoding the Register Number, Subject/Subject Code, Booklet Series, Name of the Examination Centre, Signature of the Candidate and Invigilator, etc., on the O.M.R. Answer sheet correctly, failing which the Answer sheet will be rejected and will not be valued. Use of whitener on OMR Sheet will lead to disqualification.
- 4) The OMR Sheet is to bubble only by Ball Point Pen (Blue/Black). Bubbling by Pencil / Ink Pen / Gel Pen is not permitted in this examination.
- 5) The candidates should satisfy the Invigilator of his identity with reference to the signature and photographs available on the Nominal Rolls and Hall Ticket.
- 6) The candidates should take their seats 20 minutes before the commencement of the examination and are not to be allowed after 10 minutes of the scheduled time. They should not leave the examination hall till expiry of fulltime. The candidates are allowed to use the calculators in the examination hall (not programmable calculators). Loaning and interchanging of articles among the candidates is not permitted in the examination hall. Cell phones and Pagers are not allowed in the examination hall.
- 7) The candidates are expected to behave in orderly and disciplined manner while writing the examination. If any candidate takes away Answer Sheet, the candidature will be rejected and in case of impersonation/ disorder/ rowdy behaviour during Written Examination, necessary F.I.R. for this incident will be lodged with concerned Police Station, apart from disqualifying appointment in future.
Merit is the only criteria that decides the selections. Candidates trying to use unfair means shall be disqualified from the selection. No correspondence whatsoever will be entertained from the candidates.
- 8) The Commission would be analyzing the responses of a candidate with other appeared candidates to detect patterns of similarity. If it is suspected that the responses have been shared and the scores obtained are not genuine/ valid, the Commission reserves the right to cancel his/ her candidature and to invalidate the Answer Sheet.
- 9) Wherever Written Examination is held only those candidates who are totally blind and candidate whose writing speed is affected by CEREBRAL PALSY, can use scribe at the Written Examination. In all such cases where a scribe is used, the following rules will apply.
 - (a) the scribe should be from an academic discipline other than that of the candidate and the academic qualification of the scribe should be one grade lower than the stipulated eligibility criteria.
 - (b) the candidate as well as the scribe will have to give a suitable undertaking confirming the rules applicable
- 10) If the candidate noticed any discrepancy printed on Hall ticket as to community, date of birth etc., they may immediately bring to the notice of Commission's officials/Chief Superintendent in the examination centre and necessary corrections be made in the Nominal Roll, in the Examination Hall against his/her Hall Ticket Number for being verified by the Commission's Office.

PARA-11:DEBARMENT:

- a) Candidates should make sure of their eligibility to the post applied for and that the declaration made by them in the format of application regarding their eligibility is correct in all respects. Any candidate furnishing in-correct information or making false declaration regarding his/her eligibility at any stage or suppressing any information is liable TO BE DEBARRED FOR FIVE YEARS FROM APPEARING FOR ANY OF THE EXAMINATIONS CONDUCTED BY THE COMMISSION, and summarily rejection of their candidature for this recruitment.
- b) The Penal Provisions of Act 25/97 published in the A.P. Gazette No. 35, Part-IV.B Extraordinary dated: 21/08/1997 shall be invoked if malpractice and unfair means are noticed at any stage of the Recruitment.
- c) The Commission is vested with the constitutional duty of conducting recruitment and selection as per rules duly maintaining utmost secrecy and confidentiality in this process and any attempt by anyone causing or likely to cause breach of this constitutional duty in such manner or by such action as to violate or likely to violate the fair practices followed and ensured by the Commission will be sufficient cause for rendering such questionable means as ground for debarment and penal consequences as per law and rules as per decision of the Commission.
- d) Any candidate is or has been found impersonating or procuring impersonation by any person or resorting to any other irregular or improper means in connection with his / her candidature for selection or obtaining support of candidature by any means, such a candidate may in addition to rendering himself/ herself liable to criminal prosecution, will be liable to be debarred permanently from any exam or selection held by the Service Commission's in the country.
- e) **MEMORANDUM OF MARKS:** Memorandum of Marks is issued on payment of Rs.25/- (Rupees twenty five only) through crossed Indian Postal Order only drawn in favour of the Secretary, A.P. Public Service Commission, Hyderabad. Request for Memorandum of Marks from candidates, will be entertained within two months from the date of publication of the selections. Such a request must necessarily be accompanied by a Xerox copy of the Hall-ticket. Request for revaluation or recounting will not be under taken under any circumstances. Invalid, disqualified, ineligible candidates will not be issued any Memorandum of Marks and fees paid by such candidates, if any, will be forfeited to Government account, without any correspondence in this regard.

If any candidate fails to mark the Booklet Series, Roll Number etc., in the OMR Answer Sheet, the Commission reserves the right to invalidate such Answer Sheets as Answer Sheets are valued by Optical Mark Scanner. In case of rejection/ invalidation due to omission on the part of the candidate, the decision of the Commission is final and such request for Memorandum of Marks in such cases will be intimated accordingly. No request for reconsideration of such rejected/invalidated cases will be entertained under any circumstances whatsoever.

PARA-12: COMMISSION'S DECISION TO BE FINAL:

The decision of the Commission in all aspects and all respects pertaining to the application and its acceptance or rejection as the case may be, conduct of examination and at all consequent stages culminating in the selection or otherwise of any candidate shall be final in all respects and binding on all concerned, under the powers vested with it under Article 315 and 320 of the Constitution of India. Commission also reserves its right to alter and modify regarding time and conditions laid down in the notification for conducting the various stages up to selection, duly intimating details thereof to all concerned, as warranted by any unforeseen circumstances arising during the course of this process, or as deemed necessary by the Commission at any stage.

**HYDERABAD,
DATE: 31/12/2011**

**Sd/-
SECRETARY**

ANNEXURE – I

NOTIFICATION NO. 54/2011BREAKUP OF PROVISIONAL VACANCIES MANAGER (ENGINEERING) IN HYDERABAD
METROPOLITAN WATER SUPPLY AND SEWERAGE BOARD

Zone	OC		BC-A		BC-B		BC-C		BC-D		BC-E		SC		ST		PH		Total		Grand Total
	G	W	G	W	G	W	G	W	G	W	G	W	G	W	G	W	G	W	G	W	
VI	23	14	6	–	5	2	1	–	7	1	3	1	7	3	5	2	2(OH) 1(VH)	1 HH	60	24	84
Total:	23	14	6	–	5	2	1	–	7	1	3	1	7	3	5	2	3	1	60	24	84

ANNEXURE – II**NOTIFICATION NO. 54/2011****SCHEME AND SYLLABUS FOR THE POSTS OF MANAGER (ENGINEERING) IN
HYDERABAD METROPOLITAN WATER SUPPLY AND SEWERAGE BOARDS.****(GENERAL RECRUITMENT)****SCHEME
(Degree standard)**

<u>PART-A:</u> WRITTEN (OBJECTIVE TYPE) EXAMINATION				
Paper-1	General Studies & Mental Ability	150 Marks	150 Minutes	150 Questions
Paper-2	Concerned Engineering subject i.e., Mechanical OR Civil OR Electrical OR Electronics & Communication Engineering OR Computer Science / Information Technology	300 Marks	150 Minutes	150 Questions
	Total	450 Marks		

SYLLABUS**PAPER-1.: GENERAL STUDIES MENTAL ABILITY**

1. General Science – Contemporary developments in Science and Technology and their implications including matters of every day observation and experience, as may be expected of a well-educated person who has not made a special study of any scientific discipline.
2. Current events of national and international importance.
3. History of India – emphasis will be on broad general understanding of the subject in its social, economic, cultural and political aspects with a focus on AP Indian National Movement.
4. World Geography and Geography of India with a focus on AP.
5. Indian polity and Economy – including the country's political system- rural development – Planning and economic reforms in India.
6. Mental ability reasoning and inferences.
7. **DISASTER MANAGEMENT** (Source : CBSE Publications)
 1. Concepts in disaster management and vulnerability profile of India / State of A.P.
 2. Earth quakes / Cyclones / Tsunami / Floods / Drought – causes and effects.
 3. Man made disasters - Prevention strategies.
 4. Mitigation strategies / Mitigation measures.

PAPER -2 - MECHANICAL ENGINEERING

Theory of Machines

Constrained motion, plane mechanisms, velocity and acceleration analyses, instantaneous centre, flywheels and their applications, balancing of reciprocating and rotating masses, planar cams and followers, tooth profiles, types of gears, fixed axis and planetary gear, drives principles of gyroscope vibration of free and forced one degree of freedom systems with and without damping, transmissibility and vibration isolation, critical speed of shaft.

Mechanics of solids

Stress and strain in two dimensions, Mohr's circle theories of failure. Bending moment and shear force diagrams. Deflection of simple beams, buckling of columns, torsion in shafts, thin and thick cylinders, shrink fit and thermal stresses.

Machine design

Material and manufacturing considerations in design, design for static and dynamic loading, fatigue strength, stress concentration, factor of safety, design of bolted riveted and welded joints, power screws, helical springs, hydrodynamic lubrication and journal bearing, rolling element bearings, design of spur gears, design of shifts, keys and couplings, clutches and brakes, belt and rope drives.

Manufacturing process

Classification of manufacturing process. Casting - casting defects, investment casting, die casting, centrifugal and continuous casting. Metal forming: hot and cold working. Unconventional machining and forming methods. Powder metallurgy. Welding. Jigs and fixtures, gauges and comparators. Metal cutting: Mechanics of orthogonal cutting, machinability, economics of machining, chip formation, forces, power and surface finish in turning, milling and shaping operations. Grinding, wheel wear mechanism in grinding.

Metallurgy and Material Science

Phase diagram of Binary alloys, Iron-Iron Carbide diagram. Construction and Interpretation of T.T.T. curve for steels. Case hardening, Age hardening. Alloy steels. Mechanism of fatigue and creep. Types of failures Diffusion.

Production management

Production planning and control, Forecasting assembly line balancing Product, development. Production control charts. Break-even-analysis, PERT and CPM. Control operations: Inventory control – ABC analysis, EOQ model. MRP-II, JIT work study, value engineering. Linear programming, graphical and simplex methods and queuing (Single server, Poisson Queue) theory. Maintenance engineering Quality assurance control charts for variables and attributes.

Thermodynamics

Reversible and irreversible processes. Thermodynamic systems. Applications of First and Second law of thermodynamics. Concept of entropy. Availability and unavailable energies.

Tds relations, Properties of pure substances.

I.C. Engines. Fuels and Combustion

Thermodynamic analysis of cycles. SI and CI engines. 4 stroke and 2 stroke engines. Performance testing and heat balance of IC engines. Detonation and knocking phenomena in I.C. engines. Carburetion and fuel injection systems. Engine emissions and control.

Heat Transfer, Refrigeration and Air Conditioning.

Modes of heat transfer, One dimensional steady and unsteady conduction, Heat transfer with fins, Convective heat transfer, Forced Convection over flat plate and through tubes, Free Convection over vertical flat plate and cylinders, Radiative heat transfer – Black and Gray surfaces, Shape factors. Heat Exchanger performance – LMTD and NTU method.

Refrigeration cycles and systems. Vapour compression, Vapour absorption and Air Refrigeration systems. COP of a Refrigerator. Condensers, Evaporators and Expansion devices and Controls.

Psychrometry and Psychrometric processes. Comfort conditions. Estimation of cooling and heating load.

Fluid mechanics and turbo machinery

Continuity, Momentum and Energy equations. Adiabatic and isentropic flow. Flow through turbo machinery passages. Classification of turbo machines. Fans, Blowers and

Compressors. Axial and Centrifugal machines. Steam and Gas Turbines. Pumps and Hydraulic Turbines. Model tests. Work done and Efficiencies. Specific speed.

Energy Systems

Types of Power plants. Thermal, Hydro, Nuclear and gas Turbine Power plants. Layout and Selection of a Power plant. Power plant Economics. Cost of electrical energy. Importance of Renewable Energy sources. Solar, Wind, Bio-mass and Ocean Energy Technologies, Solar thermal and Solar photovoltaic power generation.

PAPER -2 - CIVIL ENGINEERING

Strength of Materials, Theory of Structures and Designs.

- a) Strength of materials: Simple stresses and strains, principal stresses and strains, shear force and bending moment of beams, Derivation of $M/I = f_b / y = E/R$, Deflection of beams, Direct and bending stresses, torsion of circular shafts, columns and struts.
- b) Theory of structures: Castigliano's I and II theorems, slope deflection, moment distribution and Kani's methods of analysis applied for indeterminate beams and rigid frames.
Rolling loads: Propositions for the maximum bending moment at any given section and under any given load, Equivalent uniformly distributed load, influence line for uniformly distributed load shorter than span for maximum bending moment and shear force, Maximum bending moment for series of point loads travelling the girder, Influence lines for tresses.
Arches: Three hinged and two hinged parabolic arches influence lines for three hinged arches.
- c) Steel structures: Design of simple, compound beams and laced and batten columns. Design of column bases and footings, Design of highway and railway bridges through and deck type plate girders, warren girders and pratt truss.
- d) Limit state method: Design of singly, doubly reinforced and T-beams, Design of lintel one way and two way slab, Design of long and short columns, design of rectangular and combined footings.
- e) Pre-stressing concrete: Methods of pre-stressing, pre-tensioned and post-tensioned numbers, analysis and design of sections for flexures, losses in pre-stressing.

Soil Mechanics and Foundation Engineering

- a) Soil Mechanics: Definitions and relationships, particle size distribution, Atterburg limits, Permeability and permeability tests, Seepage pressure, quick sand condition, Laplace equation, Flow net, construction, properties, uses and applications.
- b) One dimensional consolidation, co-efficient of compressibility consolidation settlement, pre-consolidation pressure, one dimensional consolidation equation, consolidation test, compaction, Field compaction method, proctor's and modified compaction test, field compaction control, factors affecting compaction.
- c) Shear strength, Moher's Coulomb failure theory, effective stress, Direct shear test, Triaxial compression test and vane shear test, Rankine's theory of active and passive earth, pressures, Retaining walls, Horizontal and sloping back fill, Coulomb's Wedge theory and Rohban's construction.
- d) Infinite and finite slopes, Swedish circle method, Friction circle method, Taylor's Stability number, Bearing capacity, definitions, Terzaghi's analysis for shallow footing, general and local shear failure, Terzaghi's semi empirical equations for square and circular footings, effect of water table on bearing capacity.
- e) Types of selection of footing, Raft, pile and floating foundations, settlement, computation for immediate and consolidation settlement, Boussarlugy equation for stress under point load and uniformly distributed load, pressure bulb, vertical pressure under uniformly distributed load on circular area, New mark influence chart.

Fluid Mechanics:

Fluid properties, Fluid Statics – Forces on flat plate and curved surfaces.

Kinematics and Dynamics of Fluid flow, stream lines, equation of continuity, stream function and velocity potential function, flow nets, types of flows.

Euler's equation of motion, Energy and Momentum equations and their applications to pipe flow, free and forced vertices, venturimeters, and Notches & Weirs.

Laminar flow through circular tubes, Reynold's experiments, Flow through pipes, hydraulic gradient and total energy lines, pipes in series and parallel, siphon, Minor losses in pipes.

Open channel Flow, uniform and non-uniform flows, best hydraulic sections, specific energy and critical depth, Rapidly varied flow – hydraulic jump and its applications, Gradually varied flow – differential equations, classification of surface profiles.

Boundary layers – development of b.L. flow, laminar and turbulent boundary layers, laminar sub-layer, smooth and rough boundaries, drag and lift.

Dimensional analysis and similitude: Types of similarities, model studies, undistorted and distorted models, Buckingham II-theorem – applications.

Computer Programming:

Type of computers – components of computer, historical development of computing systems. Different languages, Flow charts.

Fortran/Basic programming, constants & Variables, expressions, arithmetic statements, library functions.

Control statements, GO TO statements – Un conditional and computed, IF statements, DO statements.

Subroutines and Function sub-programmes – Arguments, CALL statement RETURN statement, Declaration statements.

Input and output statements, and Quoted Formats, FORMAT statements, Field specification, Stop and END statements.

Subscripted Variables, Arrays, DIMENSION statement, Simple applications of computer programming in civil engineering.

Building Materials, Construction and Surveying:

Building materials: Timber, stones, bricks, sand, limes, cement, paints, varnishes and damp proofing material.

Brick work for walls, types of brick bonds, design of brick masonry walls as per IS code, detailing of walls, floors, roofs, ceilings, stair cases, doors and windows, finishing of buildings – plastering, pointing and painting – IS codes.

Use of Ferro cement, fiber – reinforced and polymer concrete in construction, building estimates and specifications.

Construction Scheduling, PERT and CPM methods.

General surveying – chain and compass survey, plane table survey – in combination with one another.

Levelling and contouring:- Fly levelling, reciprocal levelling, net levels, Reduction of levels, curvature and refraction corrections, characteristics of contours – estimation of earth work.

Theodolite survey: Temporary and Permanent adjustments, Traverse survey, computation of areas by co-ordinate system, theory of simple circular curve by linear and instrumental methods.

Tachometry: Stadia wires, Fixed and mobile wires, Tachometric tables, tachometric alidade, Reduction by calculations.

Water resources and Irrigation Engineering:

Hydrology: Hydrologic cycle, precipitation, evaporation, transpiration, infiltration. Run-off hydrograph, unit hydrograph, flood estimation frequency analysis.

Ground Water: Ground water resources, specific yield, storage coefficient of permeability, confined and unconfined aquifers, radial flow into a well under confined and unconfined conditions, recuperation tests.

Water Resources Planning: Single and multipurpose projects, storage capacity, zones of storage, reservoir losses, reservoir sedimentation, flood routing through reservoirs, economics of water resources projects.

Water Requirement of Crops: Consumptive use of water, Duty and Delta, frequency of irrigation, efficiency of irrigation, Irrigation methods.

Storage Works: Types of Dams and their characteristics, Gravity dams principles of design, criteria for stability, control of seepage, Earth dams – Design principles, spillways – types and their suitability, energy dissipation, crest gates.

Canals: Alignment of canals types of canals, design of unlined canals Lacey's regime theory, cross masonry works – canal falls, Cross Drainage works – Aqueducts and super passages.

Diversion Works: Components of Diversion scheme, Weirs on permeable foundations – Bligh's and Khosla's theories – Design principles.

Environmental Engineering:

- a) Water Supply: Protected Water Supply Scheme, Rate of demand, Population forecast, Analysis of water, Hydrogen-ion concentration, Sedimentation, Coagulation Chlorination, Methods of disinfection, Break point chlorination, Slow sand, Rapid sand and Pressure filters.
- b) Hardness of Water: Removal of temporary and permanent hardness, Distribution systems of water, pipe appurtenances, Analysis of distribution system using Hardy cross method, general principle of optimal design based on cost and head loss ratio criterion, Maintenances of distribution systems, pumping station and their operation.
- c) Sanitary Engineering: Methods of carrying refuses, systems of swarage, Sewers of different materials and shapes, self cleansing velocity, purification of natural streams, empirical formulae used in the design of sewers, deep man holes and their location, Automatic flushing tank, Different types of traps and classification.
- d) Quality of Sewage: Primary treatment to sewage, carbon cycle, B.O.D., C.O.D., and dissolved oxygen, Grit chamber, Detritus tank, skimming tank, sludge digestion process, contact beds, septic tank, imhoff tank, Activated sludge process, sludge volume index.
- e) Sources, effects and remedial measures of water, Air and Noise pollutions, particulate and Dust collection devices like internal separators, wet collection devices and electrostatic precipitators.

Transportation Engineering:

- a) Road development in India, Road planning, High way alignments, width of pavement, camber, types of gradient, Resistance to traction, sight distances, Super elevation and centrifugal ratio, circular, compound, vertical, reverse and transition curves.
- b) Types of Road: Water Bound Macadam Road, Bituminous and cement concrete Roads, Flexible and rigid pavements, types of study for traffic, Road parking, Road accidents and traffic regulation, inter sections and rotary.
- c) Permanent Ways: Rails, creep of rails, blast, sleepers, Fastings and Fixtures, Gauges, Trunouts, Crossings, Types of crossings, Railway track, drainage, Maintenance of track components, Traffic signals.
- d) Station yards and Machinery, station buildings, Platform sidings, turn tables, signal and inter locking, level crossing and necessary precautions.
- e) Development of Air Port: Take off and landing distances, characteristics of jet air craft, selection of site for air port, Survey for selection of site, Wind rose diagram, Run way width, length and design criteria, standard for general aviation.

PAPER -2 - ELECTRICAL ENGINEERING**I. Electrical Circuits:**

Basic electrical laws, Analysis of DC networks, transient response of RLC networks excited by impulse, step, ramp and sinusoidal excitations. Transform methods, transfer functions, poles and zeros steady state AC networks, frequency domain analysis, resonance, coupled circuits, two port networks, three phase networks, power in a.c. networks, power measurement in 3-phase networks.

II. E.M. Theory:

Electro static and electro magnetic fields, vector methods, Fields in dielectric, conducting and magnetic materials, Laplace and Poisson's equation. Time varying fields, Maxwell's equation, Poynting Theory, properties of transmission lines.

III. Electrical measurement and Instruments:

Electrical standards, Error analysis, Measurement of current, voltage, power, energy, power factor, resistance, inductance capacitance frequency and loss angle. Indicating instruments, extension of range of instruments, DC and AC bridges. Electronic measuring instruments. Electronic multimeter, CRO, frequency counter, digital voltmeter, transducers, Thermocouples, Thermistor, LVDT, strain gauges, Piezo electric crystal, Measurement of non-electrical quantities like, pressure, velocity, temperature, flow rate, displacement acceleration and strain.

IV. Control Systems

Open and closed loop control systems, Mathematical modeling, block diagram, signal flow graphs, time response and frequency response of linear systems, error constants and series Rootlocus technique, Bodeplot, polar plot, M-circles, N-circles, Nichol's charts, stability, Routh Hurwitz criteria. Nyquist stability criteria, compensators, design in frequency domain. Control system components. Servo motors, synchros, tacho generator, error detector. State variable approach, modeling, state transition matrix, transfer function, response.

V. Electronics:

Solid state devices and circuits. Small and large signal-amplifiers with and without feedback at audio and radio frequency, multistage amplifiers. Operational amplifiers and applications. Integrated circuits oscillators, RC, LC and crystal oscillators wave form generators, multi-vibrators – Digital circuits, Logic gates, Boolean algebra combinational and sequential circuits. A to D and D to A converters Micro processors (8085) instruction set, memories, interfacing programmable peripheral devices – Number system flow charts – expressions and statements in C – language – simple programs for engineering application.

VI. D.C. ELECTRICAL MACHINES:

Fundamentals of electro mechanical energy conversion, constructional features of D.C. Machines, emf equation types and characteristics of generators application, Torque in DC motor, types of DC motors, applications. Testing of D.C. motors, efficiency, and starting and speed control.

VII. TRANSFORMERS:

Construction – Principle of operation of 1-phase transformers – Vector diagram on No Load and – Load – Parallel operation – Regulation – efficiency – Equivalent circuit 3 phase transformer connections – Scott connection.

VIII. INDUCTION MOTORS:

Production of rotating magnetic field, production of torque types of motors equivalent circuits, Circle diagram, torque slip characteristics, starting and maximum torque, speed control, principle of single phase induction motors, Applications.

IX. SYNCHRONOUS MACHINES:

Generation of emf in 3 phase AC Generator, Armature reaction, regulation by Synchronous impedance and Ampere turn methods, parallel operation, transient and sub-transient reactances, theory of salient pole machines.

Synchronous Motor: Torque production, performance characteristics, methods of starting, V-Curves, synchronous condenser.

Special Machines: Stepper motor, Methods of operation, Amplidyne and metadyne-applications.

X. ELECTRICAL POWER GENERATION:

General layout – Types of power stations, economics of different types, base load and peak load stations, load factor and its effects, pumped storage schemes.

XI. POWER TRANSMISSION:

Calculation of line parameters, concepts of short, medium and long transmission lines, ABCD parameters, insulators, Corona, P.U. quantities, fault calculations, symmetrical components load flow analysis using Gauss Seidal, New-ton Raphson, methods, economic operation, stability, steady state and transient stability, equal area criterion, ALFC and AVR control for real time operation of interconnected systems.

XII. POWER SYSTEM PROTECTION:

Principles of arc quenching, circuit breaker classification, Recovery and restriking voltages, relaying principles over current, directional over current relays-generator and transformer protection using differential relays-line protection using distance relays Surge phenomena in transmission lines – Travelling wave theory, protection against surges.

XIII. UTILISATION:

Industrial Drives – Motors for various drives – Braking methods – Speed control of motors – Economics of rail traction – Mechanics of train movement – Estimation of power and energy requirements – Illumination – Laws Factory lighting – Street lighting – Induction and dielectric heating.

PAPER -2 - ELECTRONICS & COMMUNICATIONS ENGINEERING

I) Computer Programming: Number systems, Binary, Octal, Hexadecimal, Decimal and their conversions, fixed and floating point representation of numbers; concept of flow charts and Algorithms, Control and Decision Statements, Loops, Subroutines.

II) Network Theory: Kircheff's Laws, Node and Loop analysis, Ideal sources, Network Theorems, Thevinin's, Norton's Reciprocity, Superposition and Max. Power Transfer Theorems, Applications to simple R.L.C. Networks.

Linear time invariant circuits, Integro differential equations equations in RLC networks, Initial conditions for inductors and capacitors, Response of networks to step, impulse, sinusoidal and exponential excitations, steady state analysis, Vector representation, series and parallel resonance, Quality factor and bandwidth.

Problems with initial conditions and switches, zero input and zero state response, Time constants for RC and RL networks.

III) Network solutions using Laplace Transform Techniques, complex frequency, properties of Laplace Transforms, initial and final value theorems, Laplace Transforms of periodic signals, Inverse Laplace Transform.

Fourier series, Exponential and Trigonometric Fourier series, Fourier Transforms, Properties, Parseval's Theorem.

Convolution integral, Response to arbitrary excitation, Graphical representation of convolution integral.

Two port network parameters, Z, Y, Z ABCD parameters, applications to Network Analysis, Interconnection of two port networks, series parallel and cascade connections.

Network Functions, Driving point and Transfer functions, properties, Time domain response from pole zero plot. Complex frequency(s) plane.

Characteristic impedance, image impedance, image transfer constant, insertion loss.

IV) Semi Conductor Devices:

PN Junction, NPN and PNP transistors, small signal model determination of h-parameters, Analysis using h-parameters, CE, CB and CC configurations, Transistor biasing circuits, Transistor as a switch.

Field effect Transistor, JFET, MOSFET, Cathode Ray Oscilloscope and applications. Transistor as amplifier, Gain Bandwidth, Three amplifier configurations, Multi stage amplifiers. Operational amplifiers, principles, characteristics, Comparator, Integrator, Differentiator, Summing, Adder, Subtractor, log amplifier.

V) Electromagnetic theory

Coulomb's Law, Gauss's Law, Electric field due to charge, Electric flux density, Poisson's and Laplace's equations, Energy and potential, conductors, Dielectric, Boundary conditions.

Biot Savart's Law, Amper's Law, Stokes Theorem, Faraday's Law.

Maxwell's equations, interrelation, uniform plane wave, wave motion in free space, pointing vector.

VI) Pulse and Digital Circuits :

Wave shaping, RC RL circuits, Non-linear diode wave shaping circuits, diode clamping.

Multivibrator circuits, Astable, Monostable Schmitt Trigger Circuits, Blocking Oscillator.

Sweep Generator, Bootstrap and Miller Voltage Sweep Circuits, Linear current sweeps.

Logic Circuits : AND, OR, NOT, NAND and NOR gate circuits, DTL, TTL, MOS, CMOS, NAND, NOR circuits, realization of various flip flops.

Square wave generator, pulse generator.

VII) Communication Systems:

Modulation techniques, Amplitude Modulation, generation and demodulation, DSB Waves.

Phase and Frequency modulation, narrow band and wide band FM, transmission bandwidth, generation and demodulation of FM Waves.

Pulse Modulation, Sampling, TDM, PPM, PCM, Characteristics of ASK, FSK, PSK, Signals.

AM and FM Transmitters and Receiver circuits, communication receivers, SSB transmitters and receivers, super heterodyne receivers, IF, AGC, tracking and alignment, receiver measurements.

VIII) Control Systems:

Open loop and closed loop systems, signal flow graphs, Transfer functions and impulse response.

Routh Hurwitz criterion for stability, Root locus, techniques, effect of location of roots in system response.

Frequency Response Plots, Bode Plots, Nyquist criterion for stability. Gain and phase margin, Compensation, using Bode Plots, Lag and Lead compensation.

Effect of feedback, sensitivity. Control system components; potentiometers, servomotors, synchros, error-sensing devices.

IX) Transmission Lines & Antennas:

Reflection of E.M. Waves, standing waves, transmission line equations, Input impedance, reflection coefficient, VSWR, properties of $\lambda/4$, $\lambda/2$ lines, short-circuited stubs, impedance matching.

Principle of radiation, Vector potential, Linear Arrays, Broad Side and End fire Array, multiplication of Antenna patterns.

Antenna characteristics – Gain, radiation pattern, side lobe level directivity.

X) Microwaves:

Propagation of E.W. Waves through parallel plate and rectangular, circular wave guides, T.E., T.M., modes cavity, Resonators, Resonant frequency and quality factors.

Microwave Tubes, Klystron Amplifier, Reflex, Klystron, Magnetron, Travelling wave Tube.

Microwave components – Directional couplers, circulators, isolators, Ferrite Components.

Microwave Measurements – VSWR, Impedance and Reflection measurements, slotted line techniques.

PAPER -2 – COMPUTER SCIENCE

1. **Digital Computer Fundamentals:** Number Systems and Information Codes- Binary, octal and Hexadecimal systems, Computer Arithmetic, BCD, EBCDIC and ASCII codes. Boolean Algebra , Demorgans Law, Logic gates, K-maps and logic design of Flip Flops. Decoders, Registers and Counters.
2. **Computer Organization and Architecture:** Fixed point and Floating point Number Representations. Computer Hardware and flow of Information, CPU, , Buses and Peripheral Equipment, Memory Hierarchy, Interrupts, I/O organization, DMA
3. **Programming:** C Programming - Datatypes, operators, expressions, control statements, structures and union, functions, pointers, fileprocessing.
4. **Data Structures and Algorithms:** Stacks, Queues, Array and Linked representation, Singly and doubly linked lists, Trees, Traversal and Insertion and Deletion operations, Graphs, representation and basic operations, Sorting and searching, Analysis of Algorithms, order notation
5. **Operating Systems:** Basic OS functions, Process management, Process Scheduling, Memory Management, Virtual Memory, Device Management, File system Management.
6. **Data Base Management Systems:** Database models, data Independence, DDL and DML, E-R Diagrams, Logical and Physical structures, Relational Database Structure, Normalization, SQL, Database transaction, backup and recovery management.
7. **Computer Communications:** : LAN, WAN, Network Topologies, Error Detection and Correction Codes, OSI Reference model, TCP/IP protocol stack, Data Link protocols, IP addressing, Packet Switching, Circuit Switching and message switching, cryptography, FTP and TELNET.
8. **System Analysis and Design:** System Analysis and Design Life cycle, Requirements analysis, Feasibility Study. Tools for system Analysis, DFDs, Design Tables, Object oriented system modelling, Verification and validation.
9. **Systems Software:** Loaders, Linkers, Assemblers, Compilers, Macroprocessors, Major Functions and Design Principles.
10. **Internet Technologies:** : Introduction to Internet, www, Internet browsers Netscape & Explorer, Telnet, Search Engines. Hypertext Markup Language, HTML Tags, Frames, Creating HTML documents, DHTML

PAPER -2 – INFORMATION TECHNOLOGY

Digital Logic: Logic functions, Minimization, Design and synthesis of combinational and sequential circuits; Number representation and computer arithmetic (fixed and floating point).

Computer Organization and Architecture: Machine instructions and addressing modes, ALU and data-path, CPU control design, Memory interface, I/O interface (Interrupt and DMA mode), Instruction pipelining, Cache and main memory, Secondary storage.

Programming and Data Structures: Programming in C; Functions, Recursion, Parameter passing, Scope, Binding; Abstract data types, Arrays, Stacks, Queues, Linked Lists, Trees, Binary search trees, Binary heaps.

Algorithms: Analysis, Asymptotic notation, Notions of space and time complexity, Worst and average case analysis; Design: Greedy approach, Dynamic programming, Divide-and-conquer; Tree and graph traversals, Connected components, Spanning trees, Shortest paths; Hashing, Sorting, Searching. Asymptotic analysis (best, worst, average cases) of time and space, upper and lower bounds.

Operating System: Processes, Threads, Inter-process communication, Concurrency, Synchronization, Deadlock, CPU scheduling, Memory management and virtual memory, File systems, I/O systems, Protection and security.

Databases: ER-model, Relational model (relational algebra, tuple calculus), Database design (integrity constraints, normal forms), Query languages (SQL), File structures (sequential files, indexing, B and B+ trees), Transactions and concurrency control.

Information Systems and Software Engineering: information gathering, requirement and feasibility analysis, data flow diagrams, process specifications, input/output design, process life cycle, planning and managing the project, design, coding, testing, implementation, maintenance.

Data communications: ISO/OSI model, TCP/IP protocol architecture, data transmission, transmission media, encoding techniques, synchronous and asynchronous transmissions, multiplexing, switching techniques, spread spectrum.

Computer Networks: ISO/OSI stack, LAN technologies (Ethernet, Token ring), Flow and error control techniques, Routing algorithms, Congestion control, TCP/UDP and sockets, IP(v4), Application layer protocols (icmp, dns, smtp, pop, ftp, http); Basic concepts of hubs, switches, gateways, and routers. Network security - basic concepts of public key and private key cryptography, digital signature, firewalls.

Web technologies: HTML, XML, basic concepts of client-server computing.

ANNEXURE-III**LIST OF SCHEDULED CASTES****(Definition 28 of General Rule - 2)
SCHEDULE - I**

(Substituted with effect from 27-07-1977 through G.O.Ms.No. 838, G.A.(Services-D) Department, dated 15/12/1977)

- 1 Adi Andhra
- 2 Adi Dravida
- 3 Anamuk
- 4 Aray Mala
- 5 **Arundhatiya**
- 6 Arwa Mala
- 7 Bariki
- 8 Bavuri
- 9 Beda Jangam, Budga Jangam (In Districts of Hyderabad, Rangareddy, Mahaboobnagar, Adilabad, Nizamabad, Medak, Karimnagar, Warangal, Khammam and Nalgonda)*
- 10 Bindla
- 11 Byagara, Byagari*
- 12 Chachati
- 13 Chalavadi
- 14 Chamar, Mochi, Muchi, Chamar-Ravidas, Chamar-Rohidas*
- 15 Chambhar
- 16 Chandala
- 17 Dakkal, Dokkalwar
- 18 Dandasi
- 19 Dhor
- 20 Dom, Dombara, Paidi, Pano
- 21 Ellamalwar, Yellammalawandlu
- 22 Ghasi, Haddi, Relli, Chachandi
- 23 Godagali, Godagula(in the Districts of Srikakulam, Vizianagaram & Vishakapatnam) *
- 24 Godari
- 25 Gosangi
- 26 Holey
- 27 Holey Dasari
- 28 Jaggali
- 29 Jambuwulu
- 30 Kolupulvandlu, Pambada, Pambanda, Pambala *
- 31 Madasi Kuruva, Madari Kuruva
- 32 Madiga
- 33 Madiga Dasu, Mashteen
- 34 Mahar
- 35 Mala, Mala Ayawaru *
- 36 Mala Dasari
- 37 Mala Dasu
- 38 Mala Hannai
- 39 Mala Jangam
- 40 Mala Masti
- 41 Mala Sale, Netkani
- 42 Mala Sanyasi
- 43 Mang
- 44 Mang Garodi
- 45 Manne
- 46 Mashti
- 47 Matangi
- 48 Mahter
- 49 Mitha Ayyalvar
- 50 Mundala
- 51 Paky, Moti, Thoti
- 52 (Omitted)*
- 53 Pamidi
- 54 Panchama, Pariah
- 55 Relli
- 56 Samagara

- 57 Samban
- 58 Sapru
- 59 Sindhollu, Chindollu
- 60 Yatala (Srikakulam Dist. Only) Memo No. 8183/CV-1/2006-10 SW (CV-I) Dept., Dt. 31/03/2008
- 61 Valluvan * (Chittoor and Nellore Dist. Only) Memo No. 8183/CV-1/2006-10 SW (CV-I) Dept., Dt. 31/03/2008

* As for the Constitution (Scheduled Caste) orders (Second Amendment) Act 2002, Act No. 61 of 2002

LIST OF SCHEDULED TRIBES

1. Andh, Sadhu Andh *
2. Bagata
3. Bhil
4. Chanchu (Chenchwar omitted) *
5. Gadabas, Boda Gadaba, Gutob Gadaba, Kallayi Gadaba, Parangi Gadaba, Kathera Gadaba, Kapu Gadaba *
6. Gond, Naikpod, Rajgond, Koitur *
7. Goudu (in the Agency tracts)
8. Hill Reddis
9. Jatapus
10. Kammara
11. Kattunayakan
12. Kolam, Kolawar *
13. Konda Dhoras, Kubi *
14. Konda Kapus
15. Konda Reddis
16. Kondhs, Kodi, Kodhu, Desaya Kondhs, Dongria Kondhs, Kuttiya Konds, Tikiria Khondhs, Yenity Khondhs, Kuvinga *
17. Kotia, Bentho Oriya, Bartika, Dulia, Holva, Sanrona, Sidhopaiko (Dhulia, Paiko, Putiya-omitted *)
18. Koya, Doli Koya, Gutta Koya, Kammara Koya, Musara Koya, Oddi Koya, Pattidi Koya, Rajah, Rasha Koya, Lingadhari Koya (Ordinary), Kottu Koya, Bhine Koya, Raj Koya (Goud-omitted *)
19. Kulia
20. Malis (excluding Adilabad, Hyderabad, Karimnagar, Khammam, Mahabubnagar, Medak, Nalgonda, Nizamabad and Warangal District)
21. Manna Dhora
22. Nayaks (in the Agency tracts)
23. Mukha Dhora, Nooka Dhora
24. Pardhan
25. Porja, Parangi Perja
26. Reddi Dhoras
27. Rona, Rena
28. Savaras, Kapu Savaras, Maliya Savaras, Khutto Savaras
29. Sugalis, Lambadis, Banjara *
30. Thoti (in Adilabad, Hyderabad, Karimnagar, Khammam, Mahabubnagar, Medak, Nalgonda, Nizamabad and Warangal Districts)
31. Valmiki (in the Scheduled Areas of Vishakapatnam, Srikakulam, Vizianagaram, East Godavari and West Godavari Districts *)
32. Yenadis, Chella Yenadi, Kappala Yenadi, Manchi Yenadi, Reddi Yenadi *
33. Yerukulas, Koracha, Dabba Yerukula, Kunchapuri Yerukula, Uppu Yerukula *
34. Nakkala Kurivikaran (**Nakkala – A.P. Gazette, Part – III (B) Central Acts ordinance and Regulations Issue No. 05 Dt. 02/10/2003**)
35. Dhulia, Paiko, Putiya (in the districts of Vishakapatnam, Vizianagaram *)

* As for the Scheduled Castes and Scheduled Tribes Orders (Amendment) Act 2002, Act No. 10 of 2003

LIST OF SOCIALLY AND EDUCATIONALLY BACKWARD CLASSES

(Amended from time to time as on 31/08/2007)

GROUP- A

Aboriginal Tribes, Vimuktha Jathis, Nomadic and Semi Nomadic Tribes etc.,

1. Agnikulakshatriya, Palli, Vadabalija, Besta, jalari, Gangavar, Gangaputra, Goondla, Vanyakulakshatriya (Vannekapu, Vannereddi, Pallikapu, Pallireddy Neyyala and Pattapu) *Mudiraj / Mutrasi / Tenugollu. The G.O. Ms.No. 15 BCW(C2) Dept., dt. 19/02/2009 is suspended. Hence the inclusion of Mudiraj / Mutrasi / Tenugollu is suspended) vide Hon'ble A.P. High Court orders in WP No. 2122/2009 dated: 29-04-2009.
2. Balasanthu, Bahurupi
3. Bandara
4. Budabukkala
5. Rajaka (Chakali Vannar)
6. Dasari (formerly engaged in bikshatana)
(amended vide G.O.Rt.No. 32, BCW(M1) Department, dated 23/02/1995)
7. Dommara
8. **Gangiredlavaru**
9. Jangam (whose traditional occupation is begging)
10. Jogi
11. Katipapala
12. Korcha
13. Lambada or Banjara in Telangana Area
(deleted and included in S.T. list vide G.O.Ms.No. 149, SW, dated 3/5/1978)
14. Medari or Mahendra
15. Mondivaru, Mondibanda, Banda
16. Nayee Brahmin (Mangali), Mangala and Bajantri
(amended vide G.O.Ms.No. 1, BCW(M1) Department, dated 6/1/1996)
17. Nakkala (**Deleted vide G.O. Ms. No. 21, BCW(C2) Dept., Dt. 20/06/2011**)
18. Vamsha Raj (amended vide G.O.Ms.No. 27, BCW(M1) Department, dated 23/06/1995 deleting the Original name Pitchiguntla)
19. Pamula
20. Pardhi (**Mirshikari**)
21. Pambala
22. Peddammavandlu, Devaravandlu, Yellammavandlu, Mutyalammavandlu (Dammali, **Dammala**, Dammula, Damala Castes confined to Srikakulam dist. Vide G.O.Ms. No.: 9 BCW(C2) Dept., Dt. 9/04/2008)
23. Veeramushti (Nettikotala), Veera bhadreeya (Amended vide G.O. Ms. No. 62, BCW (M1) Dept., Dt. 10/12/1996)
24. Valmiki boya (Boya, Bedar, Kirataka, Nishadi, Yellapi, Pedda Boya) Talayari and Chunduvallu
(G.O.Ms. No. 124, SW, Dt. 24.06.85) Yellapi and Yellapu are one and the same amended vide G.O. Ms. No. 61, BCW(M1) Dept., Dt. 05.12.1996)
25. Yerukalas in Telangana area (deleted and included in the list of S.Ts)
26. Gudala
27. Kanjara - Bhatta
28. Kalinga (Kinthala deleted vide G.O.Ms. No. 53, SW, Dt. 07.03.1980)
29. Kepmare or Reddika
30. Mondipatta
31. Nokkar
32. Pariki Muggula
33. Yata
34. Chopemari
35. Kaikadi
36. Joshinandiwalas
37. Odde (**Oddilu**, Vaddi, Vaddelu)
38. Mandula (Govt. Memo No. 40-VI/70-1, Edn., Dt. 10.02.1972)
39. Mehator (Muslim) (Govt. Memo No. 234-VI/72-2, Edn., Dt. 05.07.1972).
40. Kunapuli (Govt. Memo No. 1279/P1/74-10, E&SW, Dt. 03.08.1975)
41. Patra (included in G.O. Ms. No. 8, BCW(C2) Dept., Dt. 28.08.2006)
42. kurakula of Srikakulam, Vizianagaram and Visakhapatnam Districts only. Included vide in G.O.MS.No. 26 BC W (C2) Dept., Dt. 4/07/08
43. Pondara of Srikakulam, Vizianagaram, and Visakhapatnam Districts only. Included vide G.O.MS.No. 28 BC W (C2) Dept., Dt. 4/07/08
44. Samanthula, Samantha, sountia, Sauntia of Srikakulam District only. Included vide G.O.MS.No. 29 BC W (C2) Dept., Dt. 4/07/08

45. pala-Ekari, Ekila, Vyakula, Ekiri, Nayanivaru, Palegaru, Tolagari, Kavali of Chittoor, Cuddapah, Kurnool, Anantapur, Nellore, Hyderabad and Rangareddy Districts only. Included vide G.O. MS. No. 23 B.C. W (C2) Dept., Dt. 4/07/08
46. Rajannala, Rajannalu of Karimnagar, Warangal, Nizamabad and Adilabad Districts only. (included in vide G.O.Ms. No. 44 B.C.W(C2) Dept., Dt.07/08/2008).
47. Bukka Ayyavars, Included vide G.O.Ms.No. 6 Backward Classes Welfare (C2) Dept., dt. 19/02/2009.
48. Gotrala, Included vide G.O.Ms.No. 7 Backward Classes Welfare (C2) Dept., dt. 19/02/2009. The area of operation shall be confined to Telangana Region only.
49. Kasikapadi / Kasikapudi, Included vide G.O.Ms.No. 8 Backward Classes Welfare (C2) Dept., dt. 19/02/2009. The area of operation shall be confined to Hyderabad, Rangareddy, Nizamabad, Mahaboobnagar and Adilabad Districts of Telangana Region only.
50. Siddula, Included vide G.O.Ms.No. 9 Backward Classes Welfare (C2) Dept., dt. 19/02/2009. The area of operation shall be confined to Telangana Region only.
51. Sikligar / Saikalgar, Included vide G.O.Ms.No. 10 Backward Classes Welfare (C2) Dept., dt. 19/02/2009.
52. Poosala included vide G.O. Ms.No. 16 Backward Classes Welfare (C2) Dept., dt. 19/02/2009.
53. **Aasadula / Asadula, included vide G.O. Ms. No. 13, Backward Classes Welfare (C2) Dept., Dt. 27/05/2011. The area of operation shall be confined to East Godavari and West Godavari Districts only.**
54. **Keuta/Kevuto/Keviti, included vide G.O. Ms. No. 15, Backward Classes Welfare (C2) Dept., Dt. 27/05/2011. The area of operation shall be confined to Srikakulam District only.**

GROUP – B (Vocational)

1. Achukatlavandlu in the Districts of Visakhapatnam and Guntur confined to Hindus only as amended vide G.O. Ms. No. 8, BCW(C2) Dept., Dt. 29.03.2000
2. Aryakshatriya, Chittari , Giniyar, Chitrakara, Nakshas (Muchi Telugu Speaking deleted vide G.O. Ms. No. 31, BCW (M1) Dept., 11.06.1996)
3. Devanga
4. Goud (Ediga) Gouda (Gamella) Kalalee, Goundla, Settibalija of Vishaphapatnam, East Godavari, West Godavari and Krishna Districts and Srisayana (Segidi) – (amended vide G.O. Ms. No. 16, BCW (A1) Dept., dt. 19.06.1997
5. Dudekula, Laddaf, Pinjari or Noorbash
6. Gandla, Telikula, Devatilakula (Amended vide G.O. Ms. No. 13, BCW(A1) Dept., dt. 20.05.1997)
7. Jandra
8. Kummara or Kulala, Salivahana (Salivahana added vide G.O. Ms. No. 28, BCW(M1) Dept., 24.06.1995)
9. **Karikalabhakthulu**, Kaikolan or Kaikala (Sengundam or Sengunther)
10. Karnabhakthulu
11. Kuruba or Kuruma
12. Nagavaddilu
13. Neelakanthi
14. Patkar (Khatri)
15. Perika (Perikabaliya, **Puragirikshatriya**)
16. Nessi or Kurni
17. Padmasali (Sali, Salivan, Pattusali, Senapathulu, Thogata Sali)
18. Srisayana ((**sagidi**)- deleted and added to Sl.No. 4 of Group-B)
19. Swakulasali
20. Thogata, Thogati or Thogataveerakshtriya
21. Viswabrahmin, Viswakarma (Ausula or Kamsali, Kammari, Kanchari Vadla or Vadra or Vadrangi and Silpis)
(Viswakarma added vide G.O. Ms. No. 59 BCW(M1) Dept., Dt. 06.12.1995)
22. Kunchiti, Vakkaliga, Vakkaligara, Kunchitiga of Anantapur Dist. Only vide G.O. Ms.No. 10 BCW(C-2) Dept., Dt. 9-04-2008
23. Lodh, Lodhi, Lodha of Hyderabad, Rangareddy, Khammam and Adilabad Districts only. Included in Vide G.O.MS.No. 22 BC W (C2) Dept., Dt. 4/07/08
24. Bondili (included in vide G.O.Ms. No. 42, B.C.W(C2) Dept., Dt.07/08/2008)
25. Are Marathi, Maratha(Non-Brahmins), Arakalies and Surabhi Natakavallu. (included in vide G.O.Ms. No. 40, B.C.W(C2) Dept., Dt.07/08/2008)
26. Neeli (included in vide G.O.Ms. No. 43, B.C.W(C2) Dept., Dt.07/08/2008).
27. **Budubunjala/Bhunjwa/Bhadbhunja, included vide G.O.Ms. No. 11, Backward Classes Welfare (C2) Dept., Dt. 27/05/2011. The area of operation shall be confined to Hyderabad and Ranga Reddy District only.**

28. **Gudia/Gudiya, included vide G.O.Ms. No. 14, Backward Classes Welfare (C2) Dept., Dt. 27/05/2011. The area of operation shall be confined to Srikakulam, Vizianagaram and Vishakhapatnam, district only.**

GROUP – C

Scheduled Castes converts to Christianity and their progeny
(Substituted in G.O.Ms.No.159, G.A.(Ser.D) Dept., dt. 02/04/1981)

GROUP – D (Other Classes)

1. Agar
2. Are-Katika, Katika, Are-Suryavamsi(Are-Suryavamsi added vide G.O. Ms. No. 39, B.C. W(C2) Dept., Dt. 7/08/08)
3. Atagara
4. Bhatraju
5. Chippolu (Mera)
6. Gavara
7. Godaba
8. Hatkar
9. Jakkala
10. Jingar
11. Kandra
12. Kosthi
13. Kachi
14. Surya Baliya, (Kalavanthulu) Ganika (amended vide G.O.Ms. No. 20, BCW(P2) Dept., Dt. 19.07.1994)
15. Krishanabaliya (Dasari, Bukka)
16. Koppulavelama
17. Mathura
18. Mali (Bare, Barai, Marar and Tamboli of all Districts of Telangana Region added as synonyms vide G.O. Ms. No. 3, BCW(C2) Dept., Dt. 09.01.2004 and G.O. Ms. No. 45, B.C.W(C2) Dept., Dt.07/08/2008)
19. **Mudiraj / Mutrasi / Tenugollu.**
20. Munnurukapu (Telangana)
21. Nagavamsam (Nagavamsa) vide G.O.Ms.No. 53, BC Welfare Dept., dated:19/09/1996
22. Nelli(deleted vide G.O.Ms. No. 43, B.C.W(C2) Dept., Dt.07/08/2008)
23. Polinativelmas of Srikakulam and Visakhapatnam districts
24. . . . deleted vide G.O. Ms.No. 16 Backward Classes Welfare (C2) Dept., dt. 19/02/2009
25. Passi
26. Rangrez or Bhavasarakshtriya
27. Sadhuchetty
28. Satani (Chattadasrivaishnava)
29. **Tammali (Non-Brahmins) (Shudra Caste) whose traditional occupation is playing musical instruments, vending of flowers and giving assistance in temple service but not Shivarchakars. Included vide G.O. Ms. No. 7, Backward Classes Welfare (C2) Dept., Dt. 19/02/2011).**
30. Turupukapus or Gajula kapus {... the words "of Srikakulam, Vizianagaram and Vishakhapatnam Districts" were deleted vide G.O.Ms.No. 62, Backward Classes Welfare (C2) Dept., dt. 20/12/2008 and G.O. Ms.No. 19 Backward Classes Welfare (C2) Dept., dt. 19/02/2009} who are subject to Social customs or divorce and remarriage among their women (G.O. Ms. No. 65, E&SW, dt. 18.02.1994)
31. Uppara or Sagara
32. Vanjara (Vanjari)
33. Yadava (Golla)
34. Are, Arevalla and Arollu of Telangana District (Included vide G.O.Ms.No. 11, Backward Classes Welfare (C-2) Department, dt. 13/5/2003 and G.O.Ms. No. 41, B.C.W(C2) Dept., Dt.07/08/2008)
35. Sadara, Sadaru of Anantapur Dist. Only vide G.O.Ms.No. 11 BCW (C-2) Dept., Dt. 9-04-2008
36. Arava of Srikakulam District only. Included in vide G.O. MS. No. 24 BC W (C2) Dept., Dt. 4/07/08
37. Ayyaraka, of Srikakulam, Vizianagaram, Visakhapatnam, East Godavari, West Godavari, Krishna, Guntur, Khammam and Warangal Districts only. Included in vide G.O. MS. No. 25 BC W (C2) Dept., Dt. 4/07/08
38. Nagaralu of Srikakulam, Vizianagaram, Visakhapatnam, Krishna, Hyderabad and Rangareddy Districts only. Included in vide G.O. MS. No. 27 BC W (C2) Dept., Dt. 4/07/08

39. Aghamudian, Aghamudiar, Agamudivellalar and Agamudimudaliar including Thuluva Vellalas of Chittoor, Nellore, Kurnool, Anantapur, Hyderabad and Rangareddy Districts only. Included in vide G.O. MS. No. 20 BC W (C2) Dept., Dt. 4/07/08
40. Beri Vysya, Beri Chetty of Chittoor, Nellore and Krishna Districts only. Included in vide G.O. MS. No. 21 BC W (C2) Dept., Dt. 4/07/08
41. Atirasa included vide G.O. Ms.No. 5 Backward Classes Welfare (C2) Dept., dt. 19/02/2009. The area of operation shall be confined to East Godavari and West Godavari Districts only.
42. Sondi / Sundi included vide G.O. Ms.No. 11 Backward Classes Welfare (C2) Dept., dt. 19/02/2009.
43. Varala included vide G.O. Ms.No. 12 Backward Classes Welfare (C2) Dept., dt. 19/02/2009. The area of operation shall be confined to Telangana region only.
44. Sistakaranam included vide G.O. Ms.No. 13 Backward Classes Welfare (C2) Dept., dt. 19/02/2009.
45. Lakkamari Kapu included vide G.O. Ms.No. 14 Backward Classes Welfare (C2) Dept., dt. 19/02/2009. The area of operation shall be confined to Telangana region only.
46. Veerashaiva Lingayat/Lingabaliya, included vide G.O. Ms.No. 22 Backward Classes Welfare (C2) Dept., dt. 28/02/2009.
47. **Kurmi, included vide G.O.Ms. No. 12, Backward Classes Welfare (C2) Dept., Dt. 27/05/2011. The area of operation shall be confined to Telangana Region and also Krishna District only.**

GROUP – E

(Socially and Educationally Backward Classes of Muslims)

1. Achchukattalavandlu, Singali, Singamvallu, Achchupanivallu, Achchukattuvaru, Achukatlavandlu.
2. Attar Saibuli, Attarollu
3. Dhobi Muslim/ Muslim Dhobi/ Dhobi Musalman, Turka Chakla or Turka Sakala, Turaka Chakali, Tulukka Vannan, Tskalas or Chakalas, Muslim Rajakas.
4. Faqir, Fhaker Budbudki, Ghanti, Fhaker, Ghanta Fhakerlu, Turaka Budbudki, Derves, Fakeer
5. Garadi Muslim, Garadi Saibulu, Pamulavallu, Kani-Kattuvallu, Garadollu, Garadiga.
6. Gosangi Muslim, Phakeer Sayebulu
7. Guddi Eluguvallu, Elugu Bantuvallu, Musalman Keelu **Gurravallu**
8. Hajam, Nai, Nai Muslim, Navid
9. Labbi, Labbai, Labbon, Labba
10. Pakeerla, Borewale, Deraphakerlu, Bonthala
11. Kureshi/ Khureshi, Khasab, Marati Khasab, Muslim Katika, Khatik Muslim
12. Shaik/ Sheikh
13. Siddi, Yaba, Habshi, Jasi
14. Turaka Kasha, Kakkukotte Zinka Saibulu, chakkitanaveale, Terugadu Gontalavaru, Thirugatiganta, Rollaku Kakku Kottevaru, Pattar Phodulu, Chakketakare, **Thuraka** Kasha
15. Other Muslim groups excluding
Syed, Saiyed, Sayyad, Mushaik;
Mughal, Moghal;
Pathans;
Irani;
Arab;
Bohara, Bohra;
Shia Imami Ismaili, Khoja;
Cutchi-Memon;
Jamayat;
Navayat;
and all the synonyms and sub-groups of the excluded groups; and except those who have been already included in the State List of Backward Classes.

N.B.: 1. The above list is for information and subject to confirmation with reference to G.O.Ms.No. 58, SW(J) Department, dated 12/05/1997 and time to time orders.

2. On account of any reason whatsoever in case of any doubt/ dispute arising in the matter of community status (SC/ST/BC/OC) of any candidate, subject to satisfaction with regard to relevant rules and regulations in force the decision of the Commission shall be final in all such cases.