

**ANDHRA PRADESH PUBLIC SERVICE COMMISSION: HYDERABAD**  
**NOTIFICATION NO. 11/2012, Dt: 17/03/2012**  
**SPECIAL RECRUITMENT FOR SC, ST BACKLOG VACANCIES**  
**(LIMITED RECRUITMENT - 2012)**

**PARA-1:**

Recruitment applications are invited On-line through the proforma Application to be made available on WEBSITE ([www.apspsc.gov.in](http://www.apspsc.gov.in)) for recruitment to the various posts from SC, ST Candidates.

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

PC. No.	Name of the Post	Zone/ M.Z/ SL	Community	Age as on 01/07/2012	Scale of Pay Rs.
01	Zilla Sainik Welfare Officers in A.P. Sainik Welfare Service.	SL	SC(G)-2 ST(W)-1	18-52	16,150- 42,590/-
02	Assistant Electrical Inspectors in A.P. Electrical Inspectorate Services	SL	ST(W)-1	18-46	19,050- 45,850
03	Sr. Stenographers in A.P. Sect., Law Dept.,	SL	SC/ST(W)-1	18-46	12,910- 36,700/-
04	Technical Assistants in Geophysics in Ground Water Sub – Service	Z-I	SC(G)-1L	18-46	16,150- 42,590/-
		Z-III	SC(G)-1NL* ST(W)-1L		
		Z-IV	SC/ST(W)-1L ST/SC(W)- 1L SC(W)-1L		
05	Assistant Engineer in Ground Water Dept.,	Z-VI	ST(W)-1L	18-46	15,280- 40,510/-
06	Lecturer in Govt., Polytechnic Colleges in Sugar Tech.	Z-IV	SC(W) -1L	18-46	10,845- 22,955/-
07	Municipal Assistant Engineers in A.P. Municipal Engineering sub service	Z-III	ST(W)-1L	18-46	15,280- 40,510/-
		Z-V	SC(W)-1L		
		Z-VI	ST(W)-1L		
08	Assistant Hydrologists in A.P. Ground Water Service	Z-I	ST(W)-1L	18-46	18,030- 43,630/-
		Z-II	ST(W)-1L		
		Z-V	SC(W)-1L		
09	Deputy Inspector of Survey in A.P. Survey and Land Records Sub Service.	MZ-I	ST(W)-1L	18-46	12,910- 36,700/-
**10	Assistant Director of Mines in A.P. Mining Service	SL	SC(W)-1	18-46	19,050- 45,850

\*NL :- Corrigendum, Dt. 26/03/2012

\*\* Added, Dt. 31/03/2012

**N.B.:-** M.Z. = Multi Zone; SL= State Level; G= General; W=Women; L= Local.

Pc. No.	Name of the Post	Online submission		Last date for payment of processing Fee
		From	To	
01	Zilla Sainik Welfare Officers in A.P. Sainik Welfare Service.	***30/07/2012	***30/08/2012	***28/08/2012
02	Assistant Electrical Inspectors in A.P. Electrical Inspectorate Services	11/04/2012	11/05/2012	09/05/2012
03	Sr. Stenographers in A.P. Sect., Law Dept.,	07/06/2012	07/07/2012	05/07/2012
04	Technical Assistants in Geophysics in Ground Water Sub – Service	30/07/2012	30/08/2012	28/08/2012
05	Assistant Engineer in Ground Water Dept.,	23/07/2012	23/08/2012	21/08/2012
06	Lecturer in Govt., Polytechnic Colleges in Sugar Tech.	08/05/2012	08/06/2012	06/06/2012
07	Municipal Assistant Engineers in A.P. Municipal Engineering sub service	23/07/2012	23/08/2012	21/08/2012
08	Assistant Hydrologists in A.P. Ground Water Service	30/07/2012	30/08/2012	28/08/2012
09	Deputy Inspector of Survey in A.P. Survey and Land Records Sub Service.	23/07/2012	23/08/2012	21/08/2012

<b>**10</b>	Assistant Director of Mines in A.P. Mining Service	30/07/2012	30/08/2012	28/08/2012
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\*\*\* Orders, Dt. 10/04/2012

**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.
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](http://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

**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. The vacancies are only approximate, subject to variation and confirmation by the Unit Officer, till such time as decided by the Commission and 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.Ms.No. 580 Home (Passports-C) Dept., dt. 4/10/1991, G.O. Ms. No. 200, E.F.E.S. & T (Ser-I.1), Dated 7/8/1990, Electricity Act, 2003 and I.E. Rules 1956, A.P. Cinema(Reg.) Rules, A.P. Electrical Licensing Regulations 1987 and A.P. Electricity Duty Act, G.O. Ms. No. 455, GA(Ser.B) Dept., dt. 31/12/1997, G.O. Ms. No. 534, GA(Ser.B) Dept., dt. 15/12/1999, G.O. Ms. No. 357 Irrigation and C.A.D., (C.A.D. Ser.I) Department dt. 4/12/1992, G.O. Ms. No. 178, HE(T.E.I-2) Dept., dt. 09/12/2005, G.O. Ms. No. 717, Municipal Administration Dept., dt. 8/07/1964, G.O. Ms. No. 102 Revenue (SS.2) Dept., dt. 05/02/2001, G.O. Ms. No. 8, Irrigation & CAD (CAD.SER.I) Dept., dt. 16/01/1991, G.O. Ms. No. 50, I& CAD [Ser.VIII.A2] Dept., Dt. 06/04/2005, G.O. Ms. No. 282, GA(Ser.A) Dept., dt. 20/09/2003, G.O. Ms. No. 59, Industries & Commerce (Mines-I) Dept., Dt. 10/03/1998 departmental respective Special Rules and other related G.Os, Rules etc. applicable in this regard.
3. **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 scheduled caste.
4. The Scheme of local reservation, wherever applicable has been indicated in the table at Para-1. The candidates may refer the same for applying the local posts including the definition of local cadres Para-7 of this Recruitment Notification.

5. Reservation and eligibility in terms of General Rule 22 & 22 (A) of A.P. State and Subordinate Service Rules are applicable subject to respective Special/ Adhoc Rules.
6. **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.
7. 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.
8. 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 and for matters connected therewith or incidental thereto in respect of this Notification.
9. The Reservation to Women will apply as per General Rules and Special Rules.
10. 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.
11. The Candidates who have obtained Degrees through Open Universities/Distance Education mode are required to have recognition by the Distance Education Council, 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 educational and other qualifications from a recognized University as detailed below or equivalent thereto, subject to various specifications in the relevant service rules as on the date of notification.

PC. No.	EDUCATIONAL QUALIFICATIONS
01	a) No Ex-Servicemen who retired below the rank of Captain or equivalent rank in the Army, Navy OR Air Force shall be eligible. b) Must possess the minimum general educational qualifications prescribed in the schedule to the general rules or equivalent qualification of Indian Army, Navy or Air force. NB:- Discharged certificates from the Army/Navy/Air Force as the case may be, should be furnished at the appropriate time.
02	Must possess Bachelors Degree in Electrical Engineering. Experience: 3 Years practical experience in Electrical Engineering of which not less than one year shall be in the field of Electrical and Mechanical Workshop or Generation or Transmission or Distribution of Electricity or in the administration of I.E. Act, 1910 and the rules made there under in a position of responsibility. N.B:- Experience Certificate should be from an Electrical Contractor [License Grade-A/Grade-B Form HA/HB] issued by the Electrical Licensing Board to the company where he/she has worked.
03	Bachelor's Degree of a University; and a) Pass in Typewriting Higher English and Shorthand Higher (English), and b) Pass in Typewriting Lower Telugu and Shorthand Lower (Telugu).
04	M.Sc or M.Sc. (Tech.) or M.Tech. or its equivalent in Geophysics from a University recognized by U.G.C.
05	Diploma in Civil Engineering or any other equivalent Qualification.
06	A Degree in Sugar Technology (B.E./ B.Tech.) with not less than 55% of marks. If candidates with prescribed qualifications are not available, candidates with degree in " Chemical Engineering" (B.E./ B.Tech./ A.M.I.E.(A & B) with not less than 55% of marks with Sugar Technology as an elective subject in the final year will be considered.
07	A Degree in B.E. (Civil) or its equivalent Qualification recognized by Central UGC or LSE, or LCE or its equivalent Qualification. Provided preference shall be given to the persons possessing B.E.(civil)
08	Must hold a Degree in Civil Engineering with Geology as one of the subject of a University or an Institution recognized by the UGC or must have passed Section A and B of the A.I.M.E. (India) Examination conducted by Institution of Engineers (India) OR M.Sc. [Hydrology], two years course from any University recognized by the UGC.(Amended vide G.O. Ms. No. 50, I& CAD [Ser.VIII.A2] Dept., Dt. 06/04/2005)

09	Must possess Diploma in Civil Engineering awarded by the A.P. State Board of Technical Education or its equivalent examination as recognized by the A.P. State Board of Technical Education.
**10	Must possess a Degree in Mining Engineering from any University of India established or incorporated by or under a Central Act or Provincial Act or a State Act or an Institution recognized by the University Grants Commission; or a Diploma in Mining Engineering from the Indian School of Mines, Dhanbad or an equivalent Diploma from any other recognized Institute.

**Para-3: AGE:-** The candidates should fulfill the minimum and maximum age criteria as indicated in Para-1 as on 01/07/2012.

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

S. No	Category of candidates	Relaxation of age permissible
1	2	3
1.	Retrenched temporary employees in the State Census Department with a minimum service of 6 months.	3 Years
2.	A.P. State Government Employees (Employees of APSEB, APSRTC, Corporations, Municipalities etc. are not eligible).	5 Years based on the length of regular service.(ceiling for 5 ears)
3.	Ex-Service men	3 Years & length of service rendered in the armed forces.
4.	N.C.C. (who have worked as instructor in N.C.C.)	3 Years & length of service rendered in the N.C.C.

**Para-4:FEE:** All candidates are exempted from payment of Fee. The SC/ST Candidates belonging to other states are not entitled to apply as it is a backlog Recruitment.

**Para-5: PROCEDURE OF SELECTION:**

**For Pc. No's. 01, 02, 04, 05, 07, 08, 09 & 10:-**

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.

**For Pc. No. 03:-** THE SELECTION OF CANDIDATES FOR APPOINTMENT TO THE POSTS WILL BE MADE BY WRITTEN EXAMINATION (CONVENTIONAL 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 SCs, and STs 30% or as per rules. The minimum qualifying marks are relaxable in the case of SC/ST 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 against 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 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.

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.

**For Pc. No. 06:-** THE SELECTION OF CANDIDATES FOR APPOINTMENT TO THE POSTS WILL BE MADE IN TWO SUCCESSIVE STAGES VIZ.,

i) Written Examination (Objective Type)  
and

ii) Oral Test in the shape of Interview only for those qualified as per Rules.

THE FINAL SELECTION OF THESE POSTS WILL BE BASED ON THE WRITTEN AND ORAL MARKS PUT TOGETHER.

1. Only those candidates who qualify in the Written Examination by being ranked high will be called for interview in 1:2 ratio. The minimum qualifying marks for interview / selection are SCs, and STs 30% or as per Rules. The minimum qualifying marks are relaxable in the case of SC/ST at the discretion of the Commission.

2. The candidates will be selected and allotted to the Service 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 called for interview.

3. The appearance in all the papers at the Written Examination and also for interview in case called upon, if qualified, as per Rules is compulsory. Absence in any of the above tests will automatically render his candidature as disqualified.

4. Candidates have to produce Original documents and other particulars for verification as and when required and called for. If the particulars furnished in the Application do not tally with the Original documents produced by the candidate, the candidature will be rejected. 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 assign 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 is of sound health, active habits, free from any bodily infirmity.

**Para-6: SCHEME OF EXAMINATION:** The Scheme and Syllabus for the Written Examination (Post-wise) has been shown in Annexure-I.

**Para-7: RESERVATION TO LOCAL CANDIDATES:**

**For Post Code No. 01 to 03 and 10** are State Level posts.

**For Post Code No. 04 to 08 & 09:** 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.

**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 the candidate does not fall within the scope of the above it will be considered 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 for 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 are equal such local area where he/she has studied last (in such local area) 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.

(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 submitted as and when asked to do so (See relevant enclosure) 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. (SEE THE RELEVANT ENCLOSURE)
- (C) 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, Kadapa, Anantapur and Kurnool. (CTR, KDP, ATP, KNL)
5. Adilabad, Karimnagar, Warangal and Khammam. (ADB, KRMN, WGL, KMM)
6. Ranga Reddy, Nizamabad, Mahaboobnagar, Medak and Nalgonda. Excluding the area under City of Hyderabad. (RRD, NZB, MBNR, MDK, NLG, HYD)

**City Cadre:** City of Hyderabad consists of Hyderabad Division, Secunderabad Division of Municipal Corporation of Hyderabad, Secunderabad Contonment area, O.U.Campus, Fatehnagar, Bowenpally, Macha Bolarum, Malkajgiri, Uppal Khalsa, Alwal, Balanagar, Moosapet, Kukatpally Panchayat Areas and Zamistanpur and Lallaguda villages. (HYD)

Preference 7 means – City Cadre (city of Hyderabad)

**For Pc. No. 09:-** The posts are organized into multi-zonal cadres i.e., Multi Zone – I , II & III.

- M.Z.- I: Comprising the districts of Srikakulam (SKM), Visakhapatnam(VSP), Vizianagaram(VZM), East Godavari(EG), West Godavari(WG) and Krishna(KST).
- M.Z.- II: Comprising the districts of Guntur(GNT), Prakasham(PKM), Nellore(NLR), Chittoor(CTR), Kadapa(KDP), Ananthapur(ATP) and Kurnool(KNL).
- M.Z.- III: Comprising the districts of Adilabad(ADB), Karimnagar(KRMN), Warangal(WGL), Khammam(KMM), Hyderabad(HYD), Nizamabad(NZB), Mahabubnagar(MBNR), Medak(MDK), Nalgonda(NLG) and Ranga Reddy(RRD).

**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](http://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](mailto: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** only.
2. The Written Examination is likely to be held on the following dates:-

PC. No.	Name of the Post	Date of Written Examination
01	Zilla Sainik Welfare Officers in A.P. Sainik Welfare Service.	***29/09/2012 & 30/09/2012
02	Assistant Electrical Inspectors in A.P. Electrical Inspectorate Services	09/06/2012
03	Sr. Stenographers in A.P. Sect., Law Dept.,	26/08/2012
04	Technical Assistants in Geophysics in Ground Water Sub – Service	30/09/2012
05	Assistant Engineer in Ground Water Dept.,	23/09/2012
06	Lecturer in Govt., Polytechnic Colleges in Sugar Tech.	08/07/2012
07	Municipal Assistant Engineers in A.P. Municipal Engineering sub service	23/09/2012
08	Assistant Hydrologists in A.P. Ground Water Service	30/09/2012
09	Deputy Inspector of Survey in A.P. Survey and Land Records Sub Service.	23/09/2012
**10	Assistant Director of Mines in A.P. Mining Service	30/09/2012

**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 OMR Sheet (Bottom 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 Sheets have 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) 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: 17/03/2012**

**Sd/-  
SECRETARY**



**ANNEXURE – I****NOTIFICATION NO. 11/2012****SCHEME AND SYLLABUS FOR RECRUITMENT TO THE POST OF SPECIAL RECRUITMENT  
FOR SC,ST BACKLOG VACANCIES  
(LIMITED RECRUITMENT- 2012)****FOR POST CODE NO. . 01:- SCHEME AND SYLLABUS FOR THE POST OF ZILLA SAINIK  
WELFARE OFFICERS IN A.P. SAINIK WELFARE SERVICE.****SCHEME**

WRITTEN (Objective Type) EXAMINATION				
i)	General Studies and Mental ability	150 Marks	150 Qns.	150 Minutes
ii)	Subject:			
	Paper-2 English	150 Marks	150 Qns.	150 Minutes
	Paper-3 Elementary Mathematics (SSC standard)	150 Marks	150 Qns.	150 Minutes
Total		450 Marks		

**SYLLABUS****PAPER-1: GENERAL STUDIES AND 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.

**SUBJECT****Paper-2: ENGLISH**

1. Comprehension
2. Precis-writing
3. Re-arrangement of sentences
4. Correction of sentences
5. Synonyms
6. Antonyms
7. Filling in the blanks
8. Correction of spellings
9. Vocabulary and usage
10. Idioms and phrases
11. Verb tenses
12. Prepositions
13. Active voice and Passive voice
14. Parts of speech

**PAPER-3: ELEMENTARY MATHEMATICS (SSC standard)**

**ARITHMETIC:** Number system-Natural numbers, Integers, Rational and Real numbers, Fundamental operations, addition, subtraction, multiplication, division, square roots, Decimal fractions.

Unitary method - time and distance, time and work, percentages, applications to simple and compound interest, profit and loss, ratio and proportion, variation.

Elementary Number Theory – Division algorithm. Prime and composite numbers. Tests of divisibility by 2, 3, 4, 5, 9 and 11. Multiples and factors. Factorisation Theorem. H.C.F. and L.C.M. Euclidean algorithm. Logarithms to base 10, laws of logarithms, use of logarithmic tables.

**ALGEBRA:** Basic Operations, simple factors, Remainder Theorem, H.C.F., L.C.M. Theory of polynomials, solutions of quadratic equations, relation between its roots and coefficients (Only real roots to be considered). Simultaneous linear equations in two un-knowns-analytical and graphical solutions. Simultaneous linear inequations in two variables and their solutions. Practical problems leading to two simultaneous linear equations or inequations in two variables or quadratic equations in one variable and their solutions. Set language and set notation, Rational expressions and conditional identities, Laws of indices.

**TRIGONOMETRY:** Sine x, Cosine x, Tangent x when  $0^\circ \leq x \leq 90^\circ$  values of sin x, cos x and tan x, for  $x=0^\circ, 30^\circ, 45^\circ, 60^\circ$  and  $90^\circ$

Simple trigonometric identities.

Use of trigonometric tables.

Simple cases of heights and distances.

**GEOMETRY:** Lines and angles, Plane and Plane figures, Theorems on (i) Properties of angles at a point, (ii) Parallel lines, (iii) Sides and angles of a triangle, (iv) Congruency of triangles, (v) Similar triangles, (vi) Concurrence of medians and altitudes, (vii) Properties of angles, sides and diagonals of a parallelogram rectangle and square (viii) Circles and its properties including tangents and normals, (ix) Local.

**MENSURATION:** Areas of squares, rectangles, parallelograms, triangle and circle. Areas of figures which can be split up into these figures (Field Book) Surface area and volume of cubics, lateral surface and volume of right circular cones and cylinders, surface area and volume of spheres.

**STATISTICS:** Collection and tabulation of statistical data, Graphical representation frequency polygons, histograms, bar charts, plo charts etc. Measures of central tendency.

**FOR POST CODE NO. 02:- SCHEME AND SYLLABUS FOR THE POST OF ASSISTANT ELECTRICAL INSPECTORS IN A.P. ELECTRICAL INSPECTORATE SERVICES**

**SCHEME**

**Degree Standard:**

<b>Written (Objective type) Examination</b>				
Paper-1	General Studies & Mental ability	150 Marks	150 Questions	150 Minutes
Paper-2	Subject (Electrical Engineering)	300 Marks	150 Questions	150 Minutes
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 (CONCERNED SUBJECT) 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 modelling, 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, modelling, 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.

## **FOR POST CODE NO. 03:- SCHEME AND SYLLABUS FOR THE POST OF SENIOR STENOGRAPHERS IN A.P. SECT., LAW DEPT.,**

### **SCHEME**

WRITTEN EXAMINATION (Conventional Type)	
PAPER-1	Shorthand English 120 words per minute Dictation for 7 minutes      150 Marks (45 Minutes for transcription)
	<b>OR</b>
	Shorthand Telugu 60 words per minute Dictation for 7 minutes      150 Marks (90 Minutes for transcription)

- N.B: 1) Selection would be based on the number of marks obtained by the candidates  
2) Candidates will be required to transcribe their shorthand notes on typewriters. For this purpose they will be required to bring their own **Typewriters**

## **FOR POST CODE NO. 04:- SCHEME AND SYLLABUS FOR THE POST OF TECHNICAL ASSISTANTS IN GEOPHYSICS IN GROUND WATER SUB – SERVICE**

### **SCHEME**

(Degree standard)

WRITTEN (Objective Type) EXAMINATION				
PAPER-1	General Studies	150 Marks	150 Qns.	150 Minutes
PAPER-2	Geophysics	150 Marks	150 Qns.	150 Minutes
Total		300 Marks		

### **SYLLABUS**

#### **PAPER-I: GENERAL STUDIES**

- (1) General Science
- (2) Current Events of National and International Importance.
- (3) History of India and Indian National Movement. India and World Geography.
- (4) Indian Polity and Economy.
- (5) General Mental Ability.

Questions on General Science will cover General appreciation and understanding of science 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 particular scientific discipline. In current events, knowledge of significant national and international events will be tested. In History of India, emphasis will be on broad general understanding of the subject in its social, economic and political aspects. Questions on Indian National Movement will relate to the nature and character of the nineteenth century resurgence, growth of Nationalism and attainment of independence. In geography emphasis will be on geography of India. Questions on geography of India will relate to physical, social and economic geography of the country, including the main features of the Indian agricultural and natural resources. Questions on Indian Polity and Economy will test knowledge of the Country's political system and Constitution of India, Panchayati Raj, Social Systems and economic developments in India. On general mental ability, the candidates will be tested on reasoning and analytical abilities.

**(6) 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: GEOPHYSICS**

**BASICS** : Occurrence of water in different forms, water cycle and water balance and factors contributing to the distortion of water balance.

**Geo-Hydrology**: Concepts of Geo-Hydrology and Hydro-Geology, Ground Water Aquifers – Definition of aquifer, aquiclude, aquited and aquifuge, concepts of confined, unconfined and leaky aquifers – Water bearing properties of aquifers – Storage properties – Definition of porosity, specific yield, specific retention factors influencing porosity of rocks – Determining porosity of rocks in field and in laboratory. Definition of permeability, transmissivity and storage coefficients – Ground Water Movement - Darcy's Law, distribution and concurrence of ground water. Dependency of ground water quality and yield on the recharge, Lithology and structural features. Ground water in hard rock, soft rock and coastal aquifers – Application of geological, geochemical and remote sensing methods in ground water exploration.

**PRINCIPLES OF GEOPHYSICAL PROSPECTING OF GROUND WATER**: Physical properties of rocks and ground water – Electrical resistivity, polarisability, dielectric permeability, thermal conductivity, density, magnetic susceptibility, elastic modulus and wave velocities in different media. Effect of porosity, mineral composition grain size, packing, temperature and pressure conditions water content, salinity etc., of the rocks and saturating fluids on the physical properties of rocks and Electrical resistivity method as employed in ground water problems. Various electrode configurations their applications and merits and demerits – VES and profiling methods – Interpretation – Tracing lateral and vertical boundaries of strata. Determining hydro geological properties of strata from electrical resistivity method – Principles and application of S.P., I.P. and E M methods in solving ground water problems especially in tracing the fracture and joint pattern of rocks.

Electromagnetic frequency sounding and applications – Seismic prospecting methods – Reflection and Refraction and Interpretation of seismic data in ground water problems – Gravity and magnetic methods – their role in ground water exploration, Geothermal methods – principle and application in solving ground water problems – Remote sensing and Airborne geophysical methods for assessing ground water potentialities on regional basis.

**GEOPHYSICAL WELL – LOGGING METHODS**: Consideration and specification for solving ground water problems. Principles and role of resistivity, S.P. Nuclear and thermal logging methods. Sonic, density and magnetic susceptibility logging for determining formation characters – Geophysical methods in estimating aquifer and reservoir conditions.

**APPLICATION OF GEOPHYSICAL METHODS FOR SOLVING HYDROGEOLOGICAL PROBLEMS IN :**

- (i) Soft Rock areas – Sedimentary and alluvial
- (ii) Hard Rock Areas – Granites, metamorphics etc
- (iii) Karst areas
- (iv) Coastal areas – Salt water intrusion in fresh water aquifers and their boundary determination
- (v) Prediction of hydraulic properties of granular aquifers
- (vi) Tracing buried river valleys
- (vii) Ground Water reservoir studies
- (viii) Studying valley fill areas.

**HYDRODYNAMIC INVESTIGATIONS OF AQUIFERS AND WELLS**: Hydro geological parameters of aquifers. Systematic pumping tests in steady and unsteady state conditions and methods of Theis and Jacob and Theis recovery method.

**FORMATION DRILLING AND WELL CONSTRUCTION**: Types of wells – Dug, Dug-cum-bore, shallow bore-wells, Tube Wells and Radial wells, Infiltration Galleries. Their advantages and disadvantages for discharging ground water, Methods of drilling and Percussion and Rotary – their advantages and disadvantages. Well construction-well design, well casing, Grouting and installation of well screens. Development of wells, surging, compressed air, high velocity setting, back washing, Over pumping, well efficiency and maintenance – causes of failure of wells and remedial measures pumps – shallow and deep well, hand pumps, vertical turbine pumps, submersible pumps, centrifugal pumps, jet pumps.

**ANALYTICAL STUDY OF GEO-HYDROLOGICAL DATA**: Flow nests – Graphical construction, analog simulation, numerical simulation, saturated and unsaturated flow nest and well hydrographs

and their analysis. Ground water modeling scope and utility. Types of models – Physical, analog, digital and hybrid models. Advantages and disadvantages; determining norms for safe yield in a basin by various methods. Ground water investigation in environmental and eco-balance studies.

1. Concept of programming languages Computer operating system like MS Dos, MS Windows, Unix.
2. Interpretation of Geophysical data by using computer techniques.
3. Artificial recharge Methods, conservation.
4. Ground Water Management, Ground Water Budget.
5. Ground Water pollution, landfills, waste disposal, Mining, water logging, reclamation – case studies.
6. Geographic Information system related to Ground water.

**FOR POST CODE NO. 06:- SCHEME AND SYLLABUS FOR THE POST OF LECTURER IN GOVT., POLYTECHNIC COLLEGES IN SUGAR TECHNOLOGY**

**SCHEME**

<b><u>PART-A:</u>      <b>Written (Objective Type) Examination:</b></b>				
<b>Paper-1</b>	General Studies & Mental ability	150 Marks.	150 Qns.	150 Minutes
<b>Paper-2</b>	Concerned Subject (Sugar Technology)	300 Marks.	150 Qns.	150 Minutes
<b><u>PART-B:</u>      <b>ORAL TEST (Interview)</b></b>		50 Marks		
Total		500 Marks		

- N.B:** 1. The paper in concerned subject for Engineering streams is of Engineering **Bachelor's degree** standard.  
2. The Question papers will be in English only.

**SYLLABUS**

**GENERAL STUDIES AND MENTAL ABILITY**

I. 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.

II. Current events of national and international importance.

III. 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.

IV. World Geography and Geography of India with a focus on AP.

V. Indian polity and Economy – including the country's political system- rural development – Planning and economic reforms in India.

VI. Mental ability – reasoning and inferences.

VII. **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 : SUGAR TECHNOLOGY**

**1. SUGAR MANUFACTURING PROCESS:** Juice extraction - Clarification, evaporation - Pan boiling, Crystallization - Centrifugation, drying and grading - Chemicals used in sugar industry.

**2. SUGAR - TECHNOLOGY:**

- i. **MILLING CONTROL:** Mill Extraction - Reduced mill extraction, Analysis of mill performance - Caliberation of vessels.
- ii. **BOILING HOUSE CONTROL:** Boiling house extraction-Reduced boiling house extraction, balances-importance of Chemical control.
- iii. **BY PRODUCTS OF SUGAR INDUSTRY:** Bagasse-Molasses-Filter cake.



iv. WASTE WATER TREATMENT: Primary treatment of wastewater, sugar mill wastes-Breweries, wineries and distillery wastes.

3. SUGAR-ENGINEERING: Cane unloading equipment-Cane carrier and preparatory devices-Mills-Boilers-Clarification equipments-Evaporators - Pans and condensers – Crystallisers – Centrifugal - Driers and graders- Packing and storing, Spray pan-Storage vessel.

4. INSTRUMENTATION AND PROCESS CONTROL: Elements of instrumentation-Principles and operation of instruments used for measuring process variables such as temperature, pressure and vacuum, liquid level, density, viscosity, composition-process instrumentation-process control.

5. CHEMICAL PROCESS PRINCIPLES: Process engineering -Laws of conservation of mass and energy, gas laws, vapour pressure, humidity and saturation. Material and energy balances.

THERMO PHYSICS: Heat capacities of gases and gas mixtures, enthalpy changes during phase transfers.

THERMO CHEMISTRY: Heats of formation, combustion and reaction.

THERMO DYNAMICS: First and second law, ideal gas law, equations of state, phase equilibrium-simple concepts and equations for vapour- Liquid equilibria-Equilibrium constants-Temperature and pressure effects and conversion.

6. CHEMISTRY AND SUGAR CANE AGRICULTURE: Chemistry of aliphatic and aromatic compounds-Solutions-Chemical kinetics-Colloids and emulsions. Composition of cane and cane juice-Principle of polarimetry. Sugar cane cultivation-Sugar cane pests and diseases- Nutrition of sugar cane.

7. FLUID MECHANICS: Fluid statics, Newtonian and non-newtonian fluids, macroscopic energy balance, continuity equation, Bernoulli's equation, Dimensional analysis, flow through pipe line systems, flow meters, pumps and compressors. Flow through packed and fluidized beds.

8. HEAT TRANSFER: Modes of heat transfer- one-dimensional heat conduction through planes, cylindrical and spherical walls, Resistance concepts, critical insulation thickness. Heat transfer to fluids without phase change- Forced convection in laminar and turbulent flows, Natural convection, agitated vessels. Heat transfer to fluids with phase change-Boiling, condensation and evaporation. Types of heat exchangers and evaporators and their design. Fundamentals of radiation heat transfer.

9. MECHANICAL UNIT OPERATIONS: Size reduction and size separation. Free and hindered settling. Filtration, mixing and agitation. Conveying and storage of solids.

10. MASS TRANSFER OPERATIONS: Fick's laws, mass transfer coefficients, Film, Penetration and surface renewal theories. Reynold's and Colburn analogies, Continuous and stage-wise contacting and stage efficiencies principles, design and operation of equipment's for distillation, absorption and leaching.

**FOR POST CODE NO. 08:- SCHEME AND SYLLABUS FOR THE POSTS OF ASSISTANT HYDROLOGIST IN A.P. GROUND WATER SERVICE**

**SCHEME**

WRITTEN (Objective Type) EXAMINATION				
PAPER-1	General Studies & Mental Ability	150 Marks	150 Qns.	150 Minutes
PAPER-2	Geology (degree std) OR Hydrology (PG std)	300 Marks	150 Qns.	150 Minutes
<b>Total:</b>		450 Marks		

**SYLLABUS**

**PAPER-I: GENERAL STUDIES AND 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: GEOLOGY**

Age, interior and origin of earth, principles of mineralogy, Orthoscopic and Conoscopic examination of minerals, Crystals and their symmetry. Principles of isomorphism, solid solution. Exsolution and polymorphism in minerals. Mineralogical phase rules; properties of different mineral groups – Fundamentals of Geochemistry and thermodynamics, principles and methods of field geology, Fundamentals of Remote Sensing and Geomorphology Relation between topography and structure. Applied Geomorphology – Stress and strain. Primary and secondary structures. Folds, faults, foliation, lineation, joints, unconformities, Petrofabrics, Continental Drift, sea floor spreading, tectonics, Isostasy. Orogenic belts, Ocean basin and continental margins – Stratigraphic principles. Evolution of Archeans. Proterozoics, Gondwanas, Deccan traps. Eocene-cretaceous boundary. Siwaliks, Himalayas, structure and tectonics of India. Geology of Andhra Pradesh – General characteristics of pisces, amphibians, reptiles, aves. Evolution of horse, elephant and man. Plant fossils, study of plant microfossils and animal microfossils – Textures and structures of sedimentary rocks, paleo current analysis, facies models, Lithofacies of different facies models. Classification of depositional basins – Magnetic processes. Mineralogy of igneous rocks. Phase relations. Classification of igneous rocks. Textures and structures. Tectonic setting, petrogenesis and crystallisation of some important groups of igneous rocks. Metasomatism, tectonism and magmatism – Processes of metamorphism. Textures, zones, grades and facies of facies of metamorphism. Occurrence, characteristic mineral assemblages of important metamorphic groups – Ore genesis, ore deposition, Physio-chemical environmental studies of different types of deposits. Metallogeny. Industrial minerals. Tectonic control of mineralization. Principles of geological, geophysical and geochemical exploration for minerals. Important mineral deposits of India. Mineral wealth of Andhra Pradesh – Principles of engineering geology, Engineering properties of rocks – Fundamentals of Hydro-geology, Hydrologic cycle. Ground Water, Storage and movement of subsurface water properties of rocks effecting ground water, Aquifers. Different geological formations as aquifers. Darcy's Law. Pumping tests. Quality and treatment of ground water. Exploration for ground water. Ground water management.

**PAPER-2: HYDROLOGY**

Hydrological cycle; atmospheric humidity, formation of clouds, types of clouds, monsoons, cyclones, thunderstorms; Condensation and Precipitation, precipitation processes, forms of precipitation, non-recording, self recording, radio reporting rain gauges, spatial and temporal variations of rainfall over India; Composition of soils, soil classification, field capacity; Evaporation and Transpiration, soil evaporation, evaporation from free water surface, pan evaporimeter, transpiration, evapotranspiration, potential and actual evapotranspiration, measurement of evapotranspiration – lysimeters, methods of computing evapotranspiration, Climatic water balance; Infiltration, measurement of infiltration, factors affecting infiltration.

Drainage basin and its characteristics, water divide, water shed; Runoff – surface runoff, overland flow, base flow, subsurface runoff, excess precipitation, effective precipitation, factors effecting runoff, estimation of runoff; Discharge – hydraulic and hydrologic methods of discharge measurement, stage discharge relation, discharge hydrograph, unit hydrograph, S-hydrograph, dimensionless unit hydrograph, Flood elevation, flood discharge, flood volume, flood estimation, peak discharge, design flood, standard project storm, standard project flood, probable maximum flood, flood frequency, flood control, flood routing and reservoir routing and various methods, flood forecasting, flood forecasting system, flood control methods.

Hydrogeology – Occurrence of groundwater, aquifer – types of aquifers, aquiclude, aquifuge, aquitard, primary and secondary porosity, effective porosity, permeability, intrinsic permeability, hydraulic conductivity, transmissivity, storage coefficient, specific yield, determination of aquifer characteristics, occurrence and quality of groundwater in igneous, sedimentary, metamorphic rocks and unconsolidated sediments; Hydrochemistry – major, minor and trace elements in water, sources of the above elements, pH, conductivity, TDS, BOD, COD etc., Adjudication of suitability of water for drinking, domestic, agricultural and industrial purposes,

contamination of surface and groundwater resources from various sources, salt water intrusion, Ghyben-Herzberg concept, Artificial recharge of groundwater.

Hydrological models: Types of hydrological models, major hydrological simulation models, continuous stream flow models, rainfall runoff event simulation models, temperature index and energy budget models, urban runoff models, Distributed groundwater flow models, surface and groundwater quality models. Hydrological processes; Interaction between atmosphere, biosphere, hydrosphere and lithosphere.

Remote Sensing in Hydrology: Definition, electromagnetic spectrum, interaction of electromagnetic radiation with atmosphere, matter, spectral reflectance curves, imaging sensors – pushbroom and whiskbroom type, sensor characteristics, color composites, meteorological and earth observation satellites, satellites launched by India and their sensors as well as their characteristics, applications of optical and microwave satellite remote sensing in Hydrology; Geographical Information System (GIS) and its applications in Hydrology.

**FOR POST CODE NO. 05, 07 & 09:- COMMON SCHEME AND SYLLABUS FOR THE POSTS OF ASSISTANT ENGINEER IN GROUND WATER DEPT., MUNICIPAL ASSISTANT ENGINEERS IN A.P. MUNICIPAL ENGINEERING SUB SERVICE AND DEPUTY INSPECTOR OF SURVEY IN A.P. SURVEY AND LAND RECORDS SUB SERVICE.**

**SCHEME**

<b>WRITTEN (OBJECTIVE TYPE) EXAMINATION</b>				
<b>PAPER-1</b>	General Studies	150 Marks	150 Questions	150 Minutes
<b>PAPER-2</b>	Subject:- Civil (Diploma Standard)	150 Marks	150 Questions	150 Minutes
<b>TOTAL</b>		300 Marks		

**SYLLABUS**

**PAPER-1 GENERAL STUDIES**

- (1) General Science
- (2) Current Events of National and International Importance.
- (3) History of India and Indian National Movement. India and World Geography.
- (4) Indian Polity and Economy.
- (5) General Mental Ability.

Questions on General Science will cover General appreciation and understanding of science 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 particular scientific discipline. In current events, knowledge of significant national and international events will be tested. In History of India, emphasis will be on broad general understanding of the subject in its social, economic and political aspects. Questions on Indian National Movement will relate to the nature and character of the nineteenth century resurgence, growth of Nationalism and attainment of independence. In geography emphasis will be on geography of India. Questions on geography of India will relate to physical, social and economic geography of the country, including the main features of the Indian agricultural and natural resources. Questions on Indian Polity and Economy will test knowledge of the Country's political system and Constitution of India, Panchayati Raj, Social Systems and economic developments in India. On general mental ability, the candidates will be tested on reasoning and analytical abilities.

**(6) 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: CIVIL ENGINEERING (Diploma standard)**

**SOLID MECHANICS:**

Forces: Different types of forces, gravitational, frictional, axial, tensile or compressive. Law of Parallelogram and triangle of forces, polygon of forces, problems.

Friction: Static friction, limiting friction, simple problems.  
Centre of gravity and moment of inertia. Simple plane figures.

Simple machines, law of machine, Mechanical advantage, velocity ratio and efficiency, wheel and axle, pulleys and simple screw jack-problems

Simple Stresses and strains: Different types of stresses and strains, stress-strain diagram for ductile materials. Factor of safety, ultimate strength and working strength, elastic constants, poisson ratio. Deformations, volume changes. Relations between elastic constants. Hooke's Law. Compound rods, temperature stresses, strain energy, proof resilience, impact loading.

Riveted and welded joints, different modes of failures, efficiency of joints, thin cylindrical shells, longitudinal and circumferential stresses and volume changes.

Shear force and bending moment diagrams for simply supported, over hanging and cantilever beams. Relation between intensity of loading, shear force and bending moment. Economical length of overhanging beams.

Theory of simple bending: Assumptions, basic flexure formula, bending stresses, modulus of section, moment of resistance. Circular bending. Distribution of shear stress in common structural sections.

Deflection in cantilever and simply supported beams under simple loading-propped cantilever beams subjected to simple loading, determination of reaction. SF and BM diagrams.

Torsion: Assumptions, basic formula of torsion, power transmission by shafts of uniform circular sections close-coiled springs, strain-energy in simple beams and shafts, sudden and impact loading. Principal stresses and principal planes. Mohr's circle of stress.

Thin cylinders under internal pressure stresses and volume changes.

Columns and struts: Direct and bending stresses, core of section. Short and long columns under axial loading-various end-conditions. Euler and Rankine formulae, Slenderness ratio, simple built-up columns.

Simple plane and pin-jointed trusses: Stresses by method of joints and method of sections.

## **FLUID MECHANICS:**

Introduction: Scope of hydraulics in Engineering. Definition and properties of fluid.

Fluid pressure and its measurement: Atmospheric pressure, Gauge pressure and absolute pressure. Piezometer, Manometer-U-tube, Inverted U-tube, and differential manometers.

Pressure on plane surface immersed in liquid-Horizontal, vertical and inclined plane surface.

Flow of fluids: Type of flow-uniform flow, non-uniform flow, streamline flow, Turbulent flow, steady flow and unsteady flow, Energies in fluid motion-Datum head, pressure head and velocity head. Total energy of fluid in motion - Bernoulli's theorem. Practical application of Bernoulli's theorem - pitot tube venturimeter - Orificemeter - problems.

Flow through orifices and Mouth Pieces: Definition of orifice, types of orifices, Vena contracta, coefficient of velocity, coefficient of contraction, coefficient of discharge. Submerged and partially submerged orifices. Flow through orifices under variable heads - Time of emptying a rectangular tank through orifices. Mouth pieces - different types of problems.

Notches and Weirs: Definition of notch, types of notches - Rectangular notch, Triangular notch and trapezoidal notch. Discharge over a rectangular, triangular and a trapezoidal notches.

Flow through pipes: Major and minor losses - Loss of head at entrance, loss of head due to sudden enlargement, due to sudden contraction, loss of head at exit of the pipe. Frictional loss in pipe-Chezy formula and Daycy's formula.

Hydraulic gradient and total energy line. Discharge through parallel pipes and branched pipes connected to a reservoir. Flow through syphon pipe.

Hydraulic transmission of power-flow through nozzle at the end of a pipe line-diameter of nozzle for Max H.P. available. Water hammer and its effect. Laminar and turbulent flow in pipes-Critical velocity and Reynold number.

Measurements: Measurement of velocity - Current meter surface floats and weighted rods. Determination of discharge from velocity readings.

Impact of jets: Formulae for the force of jet on a fixed vertical flat plate, fixed inclined flat plates, moving flat plates, series of flat plates fixed on the rim of a wheel. Force of jet striking at the centre and at the top of a fixed curved blade and moving curved blade, velocity triangles. Work done, power and efficiency in the above cases. Simple problems. Water turbines: Introduction to water turbines. Use of water turbines in Hydroelectric power stations line sketch showing layout of hydro-electric power plant with head race, dam, sluice gate, pen stock turbine, generator and tail race. Classification of turbines - impulse and reaction turbines brief sub-classification of axial, radial and

tangential flow type. Pelton wheel, Francis turbine and Kaplan turbine, Governing of waster turbines. Simple problems on power and efficiency.

Centrifugal pump: Installation, mountings and other accessories. Priming of centrifugal pump. Efficiency, cavitation. Simple problems on work, power and efficiency.

**FOR POST CODE NO. 10:- SCHEME AND SYLLABUS FOR THE POSTS OF ASSISTANT DIRECTOR OF MINES IN A.P. MINING SERVICE .**

**SCHEME**

**Bachelor's Degree Standard:**

Written (Competitive) Examination (Objective Type)			
<b>Paper-I</b> : General Studies & Mental Ability	150 Marks	150 Questions	150 Minutes
<b>Paper-II</b> : Mining Engineering	300 Marks	150 Questions	150 Minutes
Total	450 Marks		

**SYLLABUS**

**GENERAL STUDIES AND 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

**MINING ENGINEERING**

1. GEOLOGY: Structural Geology: Definition and scope. Recognition of faults, folds, joints, unconformities etc., Primary and induced structures, their importance in Mining, Bedding, Liniation, foliation, fracture, Cleat etc., field Geology; importance and scope of filed Geology, field techniques, geological mapping. Use of survey equipment.
2. Principles of Stratigraphy.
3. EXPLORATORY DRILLING: Principles, selection of site, lay outs, details of equipment, methods of drilling and their variation, interpretation of bore holo data.
4. EXPLOSIVES AND BLASTING: Classification, types and use of explosives storage and transport. Blasting techniques in UG and open cost mines.
5. SUPPORTS: Objectives, limitations of mine supports, Types of mine supports and systematic timbering.
6. OPENING AND CHOICE OF MINING METHODS: Opening, development of mineral deposits, classification of mining methods, merits, demerits and application. Bord and pillar mining. Long wall

mining. Open cast mining and their variations. Design of suitable methodology of mining for specific conditions like thickness, depth, inclination, annual production etc.,

7. METAL MINING: Scope and limitations of U/G mining methods, Classification of U/G metal mining systems and their applications in different conditions.

8. MINE SURVEYING: Principles of surveying. Different methods and their importance. Chain surveying. Compass surveying, theodolite surveying, plane labling, levelling, triangulation, correlation. Astronomical terms and definitions. Mine plans and sections. Regulations pertaining to plans and sections.

9. MINING MACHINERY: Elements of transport system, classification and techno economic indecies. Rope haulage, locomotive haulage, conveyers, Aerial rope ways, trackless haulage, Winding. Drainage and pumping.

10. MINE ENVIRONMENTAL ENGINEERING: Mine air and environment. Natural and mechanical ventilation, Types, design variables, selection, installation and maintenance. Mine fires, explosions and inundations, Rescue and recovery.

11. MINE LIGISLATION AND SAFETY: Regulations pertaining to conservation's, exploitation of mineral deposits. Safety welfare and hygiene of mine workers.



**ANNEXURE-II****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, Benthoriya, 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

**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) 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.