

# CENTRAL POWER DISTRIBUTION CORPORATION OF A.P LIMITED Dr.Y.S.R.VIDYUT SOUDHA

Corporate Office, Besides Govt Polytechnic College, ITI Road, Vijayawada - 520008

# **APCPDCL RECRUITMENT NOTIFICATION**

# ENERGY ASSISTANTS (JUNIOR LINEMEN GRADE-II) IN CENTRAL POWER DISTRIBUTION CORPORATION OF ANDHRA PRADESH LIMITED

# **Para-1:**

Online Applications are invited from eligible candidates for filling-up **86 Nos. backlog** vacancies of **ENERGY ASSISTANTS** to work in Village/Ward Secretariats in the Districts covered in APCPDCL with the age group of 18 to 35 years **as on 31.01.2021**.

**Note:** The candidates on selection and appointment will be paid Rs.15,000/- PM on consolidated pay for a period of 2 years. The selected candidates on appointment will be deployed to work in the Village Secretariats/Ward Secretariats established in the Gram Panchayats/Wards as per G.O.Ms.No.110, Panchayat Raj and Rural Development (MDL-1) department dated, 19.07.2019 and G.O.Ms.No.217, MA & UD (UBS) Dept., Dt.20.07.2019.

The online application will be available on the Website (APCPDCL Website <a href="https://www.apcpdcl.in">https://www.apcpdcl.in</a>) from <a href="mailto:07.04.2021">07.04.2021</a> to <a href="mailto:03.05.2021">03.05.2021</a> is the last date for payment of fee up to 17.00 Hrs.).

The applicant is required to visit the website "APCPDCL Website <a href="https://www.apcpdcl.in/">https://www.apcpdcl.in/</a>" regularly to keep himself updated until completion of the recruitment process. The APCPDCL Website <a href="https://www.apcpdcl.in/">https://www.apcpdcl.in/</a> information is final for all correspondence.

All desirous and eligible candidates shall apply online after satisfying themselves that they are eligible as per the terms and conditions of this recruitment notification. Submission of online application by the candidate is taken as authentication that he/she has read the notification and shall abide by the terms and conditions laid down there under.

The details of vacancies are as follows:-

# **Energy Assistants (Junior Linemen Grade-II):**

C No	No CIDOLE OC				ВС			00	ОТ	Total
S.No	CIRCLE	oc	Α	В	С	D	Е	sc	ST	Total
1	Vijayawada	13	3	3	-	5	3	7	4	38
2	Guntur	6	-	2	2	-	1	2	-	13
3	CRDA	2	-	-	-	-	-	-	1	3
4	Ongole	11	2	6	6	-	1	4	2	32
	Total	32	5	11	8	5	5	13	7	86

# Note-1: The number of vacancies notified may increase or decrease as per actual requirement.

# Percentage of reservation:

BC: 25% + 4% Muslim reservation subject to orders of

Government from time to time.

SC: 15% ST: 6%

Sports: 2% as per GO Ms No. 74 Youth Advancement, Tourism &

Culture (Sports) Department, Dt. 09.08.2012 & G.O.Ms.No.473, youth, advancement, Tourism and Culture

(Sports) Dept., Dated: 03.12.2018.

**Note:** Reservation to BC-E Group will be subject to the adjudications of the litigation before the Honorable Courts including final orders in Civil Appeal No: (a) 2628-2637 of 2010 in SLP. No. 7388-97 of 2010, dated. 25.03.2010 and order from the Government.

# Para-2: Eligibility:

- (i) The candidate should be of sound health, active habits and free from any bodily defect or infirmity rendering him unfit for such service.
- (ii) The candidate's character and antecedents are such as to qualify them for such service.
- (iii) The candidate should possesses the academic and other qualifications prescribed for the post.
- (iv) The candidate must be a citizen of India and resident of Andhra Pradesh.

### Para-3: Age:

No person shall be eligible for direct recruitment if the candidate is less than 18 years of age and if the candidate is more than 35 years of age as **on 31.01.2021**.

Relaxation in upper age limit is permissible up to 5 years for SC/ST and BC candidates.

For in-service Contract Workers working in APDISCOMS, the age at the time of entry into the organization as Contract Worker will be considered.

## **Para-4: Educational Oualifications:**

The candidate should possess the academic qualifications and experience including practical experience prescribed, if any, for the post on the date of the notification.

Name of the Post	Educational Qualifications
	(i) SSC/10th Class from a recognized Board
	and
	(ii) ITI qualification in Electrical Trade or
Energy Assistant	Wireman Trade or Intermediate Vocational
(Junior Lineman Grade-II)	Course in Electrical Domestic Appliances and
	Rewinding (EDAR)/ Electrical Wiring &
	Contracting (EWC) / Electrical Wiring and
	Servicing of Electrical Appliances (EW & SEA)
	and Electrical Technician from a recognized
	Institution/Board.

# Para-5: Reservations:

There will be reservations in direct recruitment in respect of Scheduled Tribes, Scheduled Castes, Backward Classes, as per Rule 22 and 22 (A) of AP State and Subordinate Service Rules read with Regulation 22 of APSEB Service Regulations Part II as adopted by APCPDCL, and as amended from time to time.

In the case of candidates who claim the benefit of reservation or relaxation from upper age limit on the basis of Caste/ Tribe or Community the basic document of proof of Community will be the Certificate issued by the Revenue Authorities not below the rank of Tahsildar in the case of SC/ST/BC. The list of Caste/Tribe/ Community is as incorporated in Schedule-I of above Rules. The candidates have to produce proof of the community claimed in their application at all stages of selection along with the certificates relating to Educational Qualifications and local status certificates etc.,. Subsequent claim of change of community will not be entertained.

The meritorious sportsman means a sportsman who has represented the State or the Country in a national or international competition or Universities in the Inter- University tournaments conducted by the Inter-University Boards or the State School team in the national sports/games

for schools conducted by the All India School Games Federation in any of the games, sports, mentioned therein; and any other games/sports as may be specified by the Government from time to time, in terms of Rule 2 (19) of AP State and Subordinate Service Rules.

The sportsmen shall submit Form-2 and/or Form-3, which ever applicable as annexed to this notification to consider their applications under sports quota.

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 A.P. 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.

The reservation to meritorious sports persons will apply as per G.O.Ms. No. 13, GAD (Ser- D) Dept., Dated:23.01.2018, G.O.Ms.No.74, Youth Advancement, Tourism and Culture (Sports) Dept., dated:09.08.2012 and G.O.Ms.No.473, Youth, Advancement, Tourism and Culture (Sports) Dept., dated: 03.12.2018.

Reservation to BC-E group will be subject to the adjudication of the litigation before the Hon'ble Courts including final orders in Civil Appeal No: 2628-2637 of 2010 in SLP(c). No. 7388-7397 of 2010, dated. 25/03/2010 and orders from the Government.

### Para-6: Reservation to Local Candidates:

Each District (i.e. Krishna, Guntur & Prakasam) will be regarded as Local area as defined in the Presidential order.

The selection list will be drawn into two parts. The first part will comprise 20% of the posts consisting of merit list of local as well as non-locals and the remaining second part will comprise the balance 80% of the posts consisting of locals only and the posts will be filled duly following the rule of reservation.

Reservation to the local candidates is applicable as provided in the Rules and as amended from time to time in force on the date of notification. The candidates claiming reservation as Local candidates should obtain the required Study Certificates in the Proforma in Annexure-II (from Class-IV to X) or Residence Certificate 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 present as and when required.

## Para-7: Definition of Local Candidate:

"LOCAL CANDIDATE" means a candidate for direct recruitment to any post in relation to that Local area where the candidate has studied in Educational Institution(s) for not less than FOUR CONSECUTIVE ACADEMIC YEARS prior to and including the year in which candidate appeared for S.S.C. or its equivalent examination. If however, the candidate has not studied in any Educational Institution during the above four years period, it is enough if candidate resided in that area which is claimed as Local area during the above said period.

In case the candidate does not fall within the scope of the (i) above it will be considered if the candidate has studied for a period of not less than seven years prior to and inclusive of the year in which the candidate has studied for the maximum period out of the said period of seven years AND where the period of their study in two or more Local areas are equal such Local area where the candidate has studied last (in such Local area) will be taken for determining the Local candidature. Similarly, if he 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 has resided last.

If the claim of Local candidature is based on study, the candidate is required to produce a certificate from the Educational Institution(s) where candidate 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 Tahsildhar in independent charge of a Mandal.

If, however, a candidate has resided in more than one Mandal during the relevant 4/7 years period but within the same District as the case may be, separate certificates from the Tahsildhars exercising jurisdiction have to be obtained in respect of different areas.

# **Note:**

- (i) Single certificate, whether of study or Residence would suffice for enabling the candidate to apply as a "LOCAL CANDIDATE".
- (ii) Residence certificate will not be accepted, if a candidate has studied in any Educational Institution up to S.S.C or equivalent examination, such candidates have to produce study certificates invariably.
- (iii) The following percentage of reservation of posts in respect of local candidates shall be followed while making direct recruitment in APCPDCL for following the spirit of Presidential Order.

"80% of the posts to be filled by Direct Recruitment shall be reserved for local Candidates in respect of **Energy Assistant** in O&M Service in each District as unit which was declared as local area for the said post. The remaining 20% of the posts shall be filled by open competition wherein local and non-local candidates can compete."

Local Candidates - 80% Open Competition - 20%

## Para-8: How to Apply:

**Application Form**: The candidates shall apply online through the APCPDCL website (<a href="https://www.apcpdcl.in">https://www.apcpdcl.in</a>) from <a href="https://www.apcpdcl.in">07.04.2021</a> to <a href="https://www.apcpdcl.in">03.05.2021</a> at 17:00 Hrs.

# Step-1: Submission of Application:

The Candidate has to logon to the website <a href="https://www.apcpdcl.in">https://www.apcpdcl.in</a> and click on APPLY ONLINE link to view the detailed notification, User Guide and Application Form. The applicants shall invariably fill all the relevant fields in the Application. Immediately on submission of application and payment of fee, the Applicant will get an acknowledgement in the form of a downloadable pdf document.

**Step-2:** The candidate has to pay the prescribed fee as detailed below.

# Fee:

(i) Applicant must pay Rs.700/- (Rupees seven hundred only) towards Application Processing fee in respect of OC/BC Candidates and in respect of SC & ST the application process fee is Rs.350/- (Rupees three hundred and fifty only).

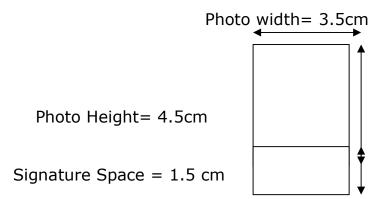
Starting date for online application and Payment of fee submission is **07.04.2021.** 

Last date for submission of Application and for payment of fee is **03.05.2021** up to **17:00** Hrs

### **Mode of Payment**

- (i) The fee mentioned in the above paragraph is to be paid online using payment gateway using net banking/ credit card/ debit card. The list of banks providing service for the purpose of online remittance of fee will be available on the website.
- (ii) The fee once remitted shall not be refunded or adjusted under any circumstances. Failure to pay the application fee will entitle total rejection of application.
- (iii) IPOs / Demand Drafts are not accepted.

# Instructions for Scanning of Photograph with Signature:



- 1. Paste the Photo on any white paper as per the above required dimensions. Sign in the Signature Space provided. Ensure that the signature is within the box.
- 2. Scan the above required size containing photograph and signature. Please do not scan the complete page.
- 3. The entire image (of size 3.5 cm by 6.0 cm) consisting of the photo along with the signature is required to be scanned and stored in \*.jpg format on local machine.
- 4. Ensure that the size of the scanned image is not more than 50KB.
- 5. If the size of the file is more than 50 KB, then adjust the settings of the scanner such as the dpi resolution, no. of colours etc., during the process of scanning.
- 6. The candidate has to sign in fill in the box provided. Since the signature is proof of identity, it must be genuine and in full signature; initials are not sufficient. Signature in CAPITAL LETTERS is not permitted.
- 7. The signature must be signed only by the candidate and not by any other person.
- 8. The signature will be used to put on the Hall Ticket and wherever necessary. If the candidate's signature on the answer script, at the time of the examination, does not match the signature on the Hall Ticket, the candidate will be disqualified.

# Sample Photo and Signature



e.g.The Technical Specifications of the sample scanned image shown above are:

Size of the file < 50 KB</li>
 Dpi setting = 200 dpi
 True Colour

The candidate has to upload his Photo with Signature in the prescribed format by clicking on the browse button at the time of submission of application form.

## Note:

- (i) The candidates can apply for the available vacancies IN THE DISTRICT IN APCPDCL (**Maximum 3 Districts including local District**) and their candidature shall be considered for the vacancies existing only in those Districts.
- (ii) The applicants are required to go through the detailed notification and decide themselves as to their eligibility for this recruitment carefully before applying and enter the particulars completely.
- (iii) Applications sent other than the On-line mode will not be entertained.
- (iv) The applicants who have applied for more than once, the last application will be taken into consideration.
- (v) Candidates are required to retain a photocopy of application form with Reference ID for future reference.
- (vi) Hand written/ Typed/ Photostat copies/ Outside printed Application Form will not be accepted and liable for rejection.
- (vii) For any problems related to submission of applications, please contact 1) 9440817408 (2) 9440801153, (3) 9491073381 (4) 8330913863 between 10:30 Hrs to 13:00 Hrs & 14:00 Hrs to 17:00 Hrs on any working day.
- (viii) APCPDCL is not responsible for any discrepancy in submitting the applications. The applicants are therefore advised to strictly follow the instructions issued in notification in their own interest.
  - (ix) Applicant must compulsorily fill-up all relevant fields of application and submit application through website only (online).
  - (x) Incomplete/incorrect application form will be summarily rejected. APCPDCL under any circumstances will not entertain the information if any furnished by the candidate subsequently. Applicants should be careful in filling-up of the application form at the time of submission.

If any lapse is detected during the scrutiny, the candidature will be rejected even though he comes through the final stage of recruitment process or even at a later stage.

- (xi) If the particulars furnished in the online application form do not tally with the Original documents produced by the Candidates, his candidature will be rejected.
- (XII) The in service contract workers, who wish to claim service weightage, while filling the application form with regard to relevant experience must ensure the correctness of starting date and ending date. For this purpose, the applicants are advised to obtain the service certificate from the concerned Executive Engineer well before submitting their application online.
- (xiii) The particulars furnished by the applicant in the application form will be taken as final. Candidates should therefore, be very careful in uploading/ submitting the application form online.
- (xiv) Before uploading/submission of application form, the candidate should carefully ensure his eligibility for this post. No relevant column of the application form should be left blank; otherwise application form will not be accepted.

# Para-9: Procedure of Selection:

### Part -A:

- **a.** The candidate must possess ITI qualification in Electrical or Wireman trade or Intermediate Vocational course in Electrical domestic appliances and rewinding (EDAR) and electrical wiring and contracting (EWC)/Electrical wiring and servicing of electrical appliances (EW & SEA) and electrical technician from a recognised Institution/Board.
- b. The written Test will be conducted based on the ITI syllabus for 100 marks. The qualifying marks for OC 40%, BC-35% and SC , ST  $\,$  30%.
- c. In service experience of outsourcing candidates who are having qualifications indicated at part A (a) in AP DISCOMS will be considered and one mark for each completing period of 6 months (i.e.180 working days) will be given as weightage up to a maximum of 20 marks depending on the length of the service in the relevant job (O&M related works)

#### Part - B

The candidates have to appear for the following tests at the circle headquarters (Krishna, Guntur and Prakasam).

- I. Pole Climbing duration of time is 15 minutes:
  - a. The candidate has to climb and descend the pole within 15 minutes.
  - b. Candidate do not fall down while climbing or descending the pole.
  - c. Candidate should touch the top of the pole.
  - d. Second chance of climbing of pole is ceased.

The candidates who fail in any one of the above tests (a to c) are disqualified.

# II. Meter Reading

## Part - C:

- a. The candidates who secured merit in written test / examination, will be called for the above tests in 1:3 ratio as per Rule Of Reservation in the descending order of merit in the written test.
- b. The tests in part B are mandatory to all the candidates who are called for these tests. The candidates, who failed in any of the tests of Part-B will be treated as totally disqualified for the selection process, even though they are qualified with good marks in written examination.

The Candidates who have applied for more than one District shall have to appear for the Part – B tests in all the Districts they have applied. Failure to attend the above tests in any District, what so ever be the reason, will result in not considering his candidature in that particular District. The responsibility of attending for the above tests purely lies with the candidate only.

- (i) The in-service contract workers who have been working in the organizations of AP DISCOMs in **the relevant job (O&M Related Works)** will be given weightage marks to a maximum of 20, depending on the length of service in APDISCOMs @ 1 mark per every 6 months (180 Days) up to the date of notification i.e., **06.04.2021**
- (ii) Any disruption or discontinuation of service for a continuous period of 180 days and above for whatever the reason may be as contract worker shall be considered as if fresh commencement from the date of resumption after such discontinuation or disruption. Service less than six months will not be considered for weightage.
- (iii) In-service contract worker shall submit certificate from the concerned Executive Engineer evidencing length of service, continuity of in service as contract worker with recorded evidence through sub-station log books to be certified by the concerned Executive Engineer and in respect of Corporate Office, by the concerned Executive Engineer. (**Proforma in Annexure-I**)

- With recorded evidence of EPF No. in his name to be certified by the concerned Executive Engineer and in respect of Corporate Office, Pay Officer.
- (iv) Break in service should not exceed more than six months for computation of weightage of marks.
- (v) The weightage marks are liable to be awarded only if the service on outsource basis i.e. O&M related works. The weightage marks are allowed from the date of acquiring the qualification even if the in-service contract worker entered the organization before acquiring qualification. The maximum marks is 20.
- (vi) If the candidates get equal marks in the written examination, according to age, oldest being considered for selection. In case there is tie in age, the person who possess education qualification at earlier date would be considered.
- (vii) 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 and free from any bodily defect or infirmity.
- (viii) In the event of a candidate getting selected to a post, he should stay/reside in the village where he is posted.

# Para-10: General:

- (i) Candidates called for verification of certificates will be required to furnish documentary proof (Originals) in evidence of the following as and when called for:
  - a. Age: Proof of age as recorded in SSC certificate or equivalent.
  - b. Qualification:
    - (i) SSC/10<sup>th</sup> Class from a recognized Board and
    - (ii) ITI qualification in Electrical Trade or Wireman trade or intermediate vocational course in Electrical Domestic Appliances and Rewinding (EDAR)/ Electrical Wiring & Contracting (EWC) / Electrical Wiring and Servicing of Electrical Appliances (EW & SEA) and electrical technician from a recognized Institution/Board.

- c. **Permanent Community Certificate** issued by Tahasildar/ MRO in original or Original caste certificate issued by Revenue Officer not less than the rank of Tahasildar/MRO in respect of SC/ST & BC candidates clearly indicating the Sub-Caste and group.
- d. **Study Certificate** from IV to X Class (**Proforma in Annexure II)**
- e. **Residential Certificate** issued by the Officer of the Revenue Department not below the rank of Tahsildar in independent charge of Mandal as the case may be (Who have not studied in any Educational Institutions up to SSC).
- (ii) PH. Candidates are not eligible.
- (iii) Candidates will be required to appear for prescribed test as and when conducted at their own cost.
- (iv) The decision of the Selection Committee/APCPDCL is final in selection and allotment of candidates.
- (v) **Disqualification**: Conviction in Criminal cases involving moral turpitude declared insolvent.
- (vi) Physical Fitness certificate issued by a Medical Officer of the rank not less than that of Civil Surgeon in the prescribed proforma at the time of joining.
- (vii) The APCPDCL reserves the right to cancel the Notification/ Recruitment process at any stage without assigning any reasons.
  - (viii) The selected candidate should show Integrity, Honesty and provide Service to the citizens.
  - (ix) The selected candidates will be allotted to the Village Secretariats/ Ward Secretariats to provide service in respect of the following works:
    - (a) To look after Power Supply & Street Lighting
    - (b) To provide Service Connections as per DISCOM norms
    - (c) Energy Assistant (JLM Gr-II) is an employee of APCPDCL, to be a coordinator between DISCOM staff & Renewable Energy Staff & Village/ Ward Secretariat.
    - (x) If the performance of the selected candidate is not satisfactory in respect of the items mentioned above he will be terminated from the post.
    - (xi) The candidate who are qualified in written test and called for certificate verification in the ratio 1:3 doesn't vest any right to a candidate for calling for Pole Climbing and Meter reading test. Mere calling for these tests doesn't vest any right to a candidate for selection.

# Para-11: Other Terms and Conditions of Appointment:

- The applicants while attending to the Pole climbing test should produce the documents mentioned above in original and 2 sets of attested copies of Xerox copies.
- (ii) A candidate shall be disqualified for appointment, if he himself or through relations or friends or any others has canvassed or endeavoured to enlist for his candidature, extraneous support, whether from official or non-official sources for appointment to this service.
- (iii) Applications should not be sent to Corporate Office / Circle Office and such applications will be summarily rejected.

# Para-12: Centres for Pole Climbing and Meter Reading:

**Venue: Respective Circle Head Quarters** 

Date: Exact Date will be kept in the APCPDCL Website.

# Para-13: Department's decision to be final:

The decision of the APCPDCL in all aspects and all respects pertaining to the application and its acceptance or rejection as the case may be, conduct of Test 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.

APCPDCL also reserves its right to alter and modify the terms 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 APCPDCL at any stage. All powers are reserved to APCPDCL.

Place: VIJAYAWADA Date: 06.04.2021

CHAIRMAN & MANAGING DIRECTOR
APCPDCL :: VIJAYAWADA

# Syllabus for Energy Assistants (JLM Grade-II)

#### 1. Fundamentals of Electrical Engineering

Electric current-conductors- Semiconductors-Insulators, Electric potential-resistance- laws of resistance, Effects of temperature on resistance, Ohms law, Resistances in series, parallel and Series-parallel, Kirchhoff's laws.

#### 2. Electro Magnetism

Introduction to magnets, Magnetic pole, magnetic axis, pole strength, Properties of magnets, Classification of magnets, Fleming left hand rule, Field pattern of long straight conductor, solenoid.

#### 3. Electro Magnetic Induction

Concept of electro-magnetic induction Lenz's law -Fleming's right-hand rule, Faraday laws of electromagnetic induction-types of emf's-dynamically and statically induced emf, Self and mutual induction.

#### 4. Cells and Batteries

Chemical effects of electric current-faraday laws of electrolysis, Cells and their components-Definition of battery-Primary cells -defects and remedies, dry cell-Secondary cell-comparison between primary cells and secondary cells, Lead acid cell-principle and working of lead acid cell detailed study-Wh & Ah efficiencies of cell, charging methods of secondary cells, Maintenance of Lead acid cell and testing of lead acid battery.

#### 5. Electrostatics

Definition of Electric charge& its Units, Capacitance- Definition and formula, Types of Capacitors, Capacitors in series and parallel.

## 6. Electrical Wiring accessories, wiring tools and wire joint

Types of switches with modern approach, Other accessories like lamp holders, ceiling roses, sockets, fuses etc. (detailed study), Fuses and fuse materials, MCB & CBs, wiring tools, Wire joints, Soldering, taping and termination of wires/Cables and cable joints.

#### 7. Wiring Systems & wiring circuits

Types of house wiring-Cleat wiring, CTS/TRS wiring, Conduit wiring, Casing capping wiring-detailed study, Comparison between different wiring methods, Stair case wiring, series and parallel circuits, Master switch circuits, Corridor wiring circuits, Fluorescent tube light circuit, flashers, moving lights.

#### 8. Earthing

Necessity of earthing- definitions of fundamental terms in earthing like earth, earth lead, earth electrode, earth wire etc, Types of earthing-detailed study of pipe earthing and plate earthing, Specifications of materials used for earthing, Measurement of Earth resistance, IE rules for earthing.

#### 9. IE rules for Electrical wiring

Precautions to be observed while installing different electric appliances in houses, I E Rules regarding house wiring, Causes of Fire accidents due to Electricity failures.

#### **10. Indicating Instruments**

Classification of Indicating type measuring instruments, Effects of currents used in indicating instruments, torques/forces in electrical instruments, Basic requirements of indicating instruments, Moving Iron Instruments, MC instruments – difference between MI and MC insts., Extension of MI & MC Instruments, Measurement of Power-Dynamometer type, different types of errors in indicating instruments.

#### 11. Integrating Instruments

Definition and classification of integrating instruments, 1-ph, 3-ph phase induction type energy meters, errors in energy meters.

#### 12. Special instruments

Power factor meter, Frequency meter, Synchronoscope, Instrument transformers CT-PT, Multi meter, Megger, Tongue tester.

#### 13. Semiconductor Devices and Their Applications

Atomic structure and semiconductor theory, P-type and N-type materials, P-N junction, biasing and characteristics of diodes. Rectifier circuit - half wave, full wave, bridge rectifiers, Transistors-types of transistors- configurations, applications, working of inverter and UPS.

#### 14. D.C. Generators

Generator Principle, simple loop generator, Production of induced EMF and its nature, Construction details of DC Generator, Yoke-poles-pole shoes -Armature-Commutator - brush assembly bearing Field coils, Armature winding-lap and wave winding, E.M.F. equation, Types of Generators-separately- Self excited-series-shunt-compound wound, Applications of different types of Generators.

#### 15. D.C. Motors

Principle of working-Significance of back EMF(Eb), Types of dc motors, Series-shunt and compound motors, speed and torque equation, Speed Control of Motors-Field control method for series & shunt motors- Armature control methods (for shunt motors only), DC motor starters-Necessity of starter working of 3-point starter-4-point starter, Applications of different types of motors.

#### 16. A C fundamentals & Circuits

Definitions of Alternating currents and voltage, different wave forms, Definition of cycle, time period, Frequency, Amplitude, Instantaneous value, maximum, Average and RMS values of A.C voltage & current, Form factor, Peak factor of sinusoidal wave, Phaser representation of A.C, Phase & Phase difference of ac, Power & Power Factor. Single phase A.C. Through Pure Resistive/Inductive/capacitive circuit- current-voltage-phaser diagrams- power-power factor, A.C. through R-L/R-C/R-L-C Circuit Current -voltage-phasor diagram Power-Power factor, Poly phase circuits-advantages of poly phase over single-phase Star and delta connection- voltage & current Relation in star connection - Delta or mesh connections, 3-phase power equation.

#### 17. Transformers

Transformer – Its construction, working, performance, EMF equation, Cooling of transformer, losses and efficiency, transformation ratio. Construction of core, winding shielding, auxiliary parts breather, conservator. Buchholz's relay, other protective devices, Transformer oil testing, Auto transformer-working, Applications.

#### 18. Alternators

Principle and operation of Alternators, Relation between speed, no. of poles and frequency, Constructional details of alternator – Salient pole type and smooth cylindrical type, EMF equation.

#### 19. Three-Phase Induction Motors

Classification of 3-Ph motors, working principle of 3-Ph Induction motors, Relations between Ns, no. of poles and supply frequency-Definition of Slip & slip speed, Constructional details of Induction Motors-squirrel cage and slip ring motors, Starters for Induction Motors-Necessity of starter-D.O.L starter-Star/delta starter-Rotor resistance starter for slip ring Induction Motor, Applications.

#### 20. Single phase Induction Motors

Principle of operation of Single-phase Induction Motors, Types of 1-Ph Induction motor like Split phase, capacitor start -capacitor start capacitor run-shaded pole motors- their applications.

#### 21. Generation of Power

Sources of Electrical Energy- conventional-non conventional energy sources, Generation of Electrical power using conventional energy sources -working of Hydel and Thermal power stations.

#### 22. Transmission and Distribution of Power

Transmission of power from generating station to receiving stations, use of step-up and step-down transformers and associated equipment, Use of Circuit breaker-isolators-earth switches, C.T.'s etc., Distribution of power, Transformer substations, Distribution T/F Substation-Double Pole Structure-Pole mounted and Plinth mounted T/F, Substation associated equipment such as A.B. switch, L.A.-H.G. Fuse-Circuit Breaker.

#### 23. Planning, Estimation & Costing of Wiring

Control Panel elements, types and specifications, Concept and Principle of plan, estimation and cost. Preparation of complete house wiring layout, industrial wiring.

#### 24. Illumination

Introduction of Illumination, Terms & definitions, laws of illumination, requirements of good lighting, intensity of light –importance of light, colour available. Construction, working & applications of – Incandescent lamp, Fluorescent tube, CFL, Neon sign, Halogen, Mercury vapour and types, sodium vapour etc. Decoration lighting.

# Model Paper (మోదల్ పేపర్)

1. The magnetizing for by the relation	, ,	•	[ ]
అయస్కాంతీకరణ బ అనుసంధానించబదే		ာ မထာသ၅ဝဓ မာ့ပု	න්න බ්°ට්ටලම (Β)
$(1) B = \mu H$		(2) B = H /	$\mu_0 \mu_r$
$(3) B = \mu_0 H /$	$\mu_r$	$(4) B = \mu_r H$	$I/\mu_0$
2. If the peak value of to-peakvalue? ఒక నిర్ధిష్ట సైన్ తరం శిఖరానికి మధ్య విల	గ వోల్టేజ్ యొక్క	_	[ ]
(1) 20 V	(2) 10 V	(3) 5 V	(4) 7.07 V
3. The standard suppl భారతదేశంలో ప్రామ			[ ]
(1) 25Hz	(2) 50Hz	(3) 60Hz	(4) 100Hz
4. In a three-phase sy మూడు దశల వ్యవస్థం	•	•	
(1) Frequency o హోల్టేజీల పౌన	•		
(2) Magnitude ර హోల్టేజీల పరిశ	•		
(3) Angle betwe వోల్టేజీల మధ్య	_		
, ,	ich the phase vo ා හිංධේ අීఖර බ	oltages attain their ఎలువల (క్రమం	peak values

5 is most suitable for temporary wiring. [									
	క వైరింగ్ <b>కు చాలా</b> (	అనుకూలంగా ఉంట	ාංධි.						
(1) Cleat Wiri	ng	(2) CTS Wiring							
క్లీట్ వైరింగ్		సిటీఎస్ వైరి	ంగ్						
(3) PVC Wirin	ng	(4) PVC Casin	ng & Cappin	g					
పివిసి వైరిం	ក៏	పివిసి కేసింగ్	& క్యాపింగ్						
6. I.E. rule pertainin	g to earthing is		[	]					
ఎర్తింగ్ <b>కు సంబం</b> ధి	ంచిన I.E. రూల్								
(1) 89	(2) 90	(3) 88	(4) 87						
7. The specific grav	ity of an electroly	rte is measured wit	th a[	]					
ఎలక్ష్మోలైట్ యొక్క న	నిర్దిష్ట గురుత్వాకర్నణ	నుతో కొలునే	స్తారు.						
(1) Watt meter	[	(2) Ammeter							
వాట్ మీటర్	5	అమ్మీటర్							
(3) Multi mete	er	(4) Hydro meter							
మల్టీ మీటర్		హైడ్రో మీటర్							
8. The two element:	3-phase energy m	eter is only suitabl	e for a syster	m of					
రెండు మూలకాల :	3–ఫేస్ శక్తి మీటర్	వ్యవస్థకు శ	మాత్రమే సరికే	కోతుంది.					
(1) 1-phase 2-	wire	(2) 1-phase 3-wire							
1–ఫేస్ 2–	<u>3</u> 5	1–ఫేస్ 3–వైర్							
(3) 3-phase 3-	wire	(4) 3-phase 4-v	wire						
3-ఫేస్ 3-7	3 <b>5</b>	3-ఫేస్ 4-వెర్							

9. The advantage of moving iron instrument	is	[	]
మూవింగ్ ఐరన్ పరికరం యొక్క ఉపయోగం			
·			
(1) Used for both AC and DC	(2) Used in DC of	only	
ఏసి మరియు డిసిలో ఉపయోగిస్తారు	డిసిలో మాత్రమే	ఉపదే	<b>හ</b> ිරුදුර
(3) Used in AC only	(4) Have non un	iform	scale
ఏసిలో మాత్రమే ఉపయోగిస్తారు	ఏకరీతి కాని సే		
ಎನಲ ಮೀಡಮ ಹಎಯ್ ಗನ್ತ್ರಯ	2508 5°N N	رص ها	عدد
10. The most suitable material for transform	ner core is	ſ	1
	101 0010 13	L	J
పరివర్తక కోర్ కు అతి సరియైన పదార్థం			
(1) Hot rolled grain-oriented steel			
వేడిగా చుట్టబడిన కణ ఆధారిత ఉక	<b>D)</b>		
<b>မ</b>	G		
(2) Cold rolled grain-oriented steel			
శీతలంగా చుట్టబడిన కణ ఆధారిత ఉక	D)_		
$oldsymbol{\omega}$			
(3) Cast steel			
పోత ఉక్కు			
(4) Aluminum			
అల్యూమినియం			

# Form-2

(For representing a State in India in a National Competition in one of the recognized Games/Sports)

# STATE ASSOCIATION OF

Certificate to a meritorious sportsperson for Employment to Group-III posts/Service under the State Government/Similar posts in Government Institutions.

Certified that Shi	ri			Son	of
Shri	resident	of	(comple	te addres	s)
				rep	or
esented the State of			_in the	game/event	of
		in	the	Nation	al
Competition/Tournament held at				fro	m
to	·				
The position obtained b				e above sa	id
Competition/Tournament was			<u>_</u> ·		
The Certificates is being give	n on the basis	of records	ovoiloble	in the Office	٥f
			avanable	in the Office (	ΟI
the State Association of		•			
Place	Signat	ure			
Date	Name				
	Name	of the Sta	te		
	Assoc	iation			
	Addre	ss			

Note: This Certificate will be valid only when signed personally by the Secretary of the State Association.

# Form-3

(For representing a University from A.P. State in the Inter-University Competition at National level/Zonal level/Regional level in one of the recognized Games/Sports)

UNIVERSITY OF				
Certificate to a meritorious spo	ortsperson	for Em	ployment 1	to Group-IV
posts/Service under the State Government/	Similar pos	ts in Go	vernment Ir	nstitutions.
Certified that Shri				Son of
Shri 1			` -	address)
esented the University of				
		in	Inter	University
Competition/Tournament held at				from
to				
The position obtained by th  Competition/Tournament was  The Certificates is being given on t  Dean of Sports or Officer in overall	he basis of 1	records	_· available in	the Office of
Place	Signature	;		
Date	Name			
	Designati	on		
	Name of	the Univ	versity	
	Address_			
	Sea1			

Note: This Certificate will be valid only when signed personally by Dean/Director or other Officer in overall charge of Sports in the concerned University.

# ANNEXURE -I

# CERTIFICATE

	Regi	ster	mair	ntained	l at _				Sub	-Stati	on/Offic	e and	the Ac	quitence 1	olls
	maintained by the Contractor, Sri												(Full Na	ame	
	with	Su	rnam	e) S/c	o. Si	i							(Full	Name v	with
	Surn	ame	e) has	s work	ed a	s						_ (des	ignatio	n of post	t) at
								Sub-Station	n/office/	Section	on for	th:	e pe	eriod f	rom
						to _									
	The	part	icula	rs of S	ri						are note	ed belo	ow		
	I	. 1	Parti	culars	of A	greeme	nt								
		Particulars of Agreement			Particulars of Work Order Che		rticulars o Check easuremen		No.of days	Workin g in Sub-	X71 41				
S. No	l the		the			reement No.	Date	Work e order No.	Date	Date		Int	oresent during the period from	station/ Section Office/ any other office	Whether continuing as on date of Notificatio
	I	I. I	Parti	culars	of E							1			
	S.N	No.		me of th		Name of the Contract		Particular Challan No.	s of Rem Date		of EPF Amount	Po	eriod	No.of Days	
	I	II.I	Partio	culars	of G	Group In	sur	ance				1		1	
		S.	S.No. Name of the Incumbent			ame of the				Period No.of days From To					

# IV. Spells of absence for more than 180 days

	Name of the	Name of	Spells of Abesence				
S.No.	Incumbent	the Contractor	From	То	No.of Days		
					2)5		

Total No.of Man days (excluding absence period)	-
This certificate is issued only for the purpose of enabling Sriapply for the post of Energy Assistant (Junior Lineman Grade-II) in APCPDCL.	to

# EXECUTIVE ENGINEER APCPDCL

**NOTE:** The above particulars of agreement, check measurement, attendance are to be based on records only and Xerox copy of the records duly attested by the concerned Executive Engineer are to be enclosed to this certificate. The above particulars are to be verified by the Executive Engineer personally and he is responsible for the correctness of the particulars. Certificates of the lower officers and counter signed by Executive Engineer are not permitted. Executive Engineer himself should certify.

# ANNEXURE-II

# SCHOOL STUDY CERTIFICATE

NOTE: Should be obtained from the Head of Educational Institution(s).

Class	Name and Place of School	District	Duration of Study giving month and year
IV			
V			
VI			
VII			
VIII			
IX			
X or SSC			

STATION:	Signature of the Head of the
DATE:	Educational Institute(s)

# FORM FOR COMMUNITY, NATIVITY AND DATE OF BIRTH CERTIFICATE

Serial No.			
S.C. S.T. B.C. Certificate No:	Seal of the Issuing Office	District Code: Mandal Code: Village Code:	
COMMUN	HTY, NATIVITY AND D	OATE OF BIRTH CERTIFIC.	ATE
(1) This is to Sri	certify that Sri of Community whice	f Village/Town the State of A ch is recognized as (*) S.C/	Son of Indhra Pradesh /S.T/B.C Sub-
The Co		bes) Order, 1950 5.9.1970 as amended from	
		S.Cs and S.Ts (Amendment) Ac	
(2) It is certifi  Andhra Pradesh.	ed that Sri Village/Town	Mandal	is native of District of
(3) It is certifie  Andhra Pradesh.	ed that the place of bi	irth of Sri Mandal	is District of
(4) It is certifie	Month	th of Sri Year as per the declaration	(in words)
his/her/father/mother/		the School records where he/sh	
		Signature Date Name in Capital Letters Designation: (Seal)	

Explanatory Note: While mentioning the community, the Competent Authority must mention the Sub-caste (in case of Scheduled Castes) and Sub-tribe or Sub-group (in case of Scheduled Tribes) as listed out in the S.Cs and S.Ts (Amendment) Act, 1976.

# CERTIFICATE OF RESIDENCE

(To be produced by such candidates who have not studied in any educational institution during the whole or any part\* of the relevant 4/7 years period but claim to be local candidates by virtue of residence for Post Codes for which there is reservation for Local Candidates)

# It is here by certified

(a)	That	Sri				
S/o.				appea	red for the first time	
for the Matriculation (S.S.C) Examination in				(Mont	h)	
(Year)						
4/7 cons	secutive ac		any educational instit ding with the acaden aid examination.		-	
		•	ely preceding the confollowing place / place		aforesaid	
Sl.No		Village	Mandal	District	Period	
1						
2						
3						
4						
5						
	E SEAL:					
STATION:		Officer of Revenue Department not below the rank of Mandal Revenue				
DATED:			Officer holding independent Charge			

<sup>\*</sup> STRIKE OFF "WHOLE"/PART AS THE CASE MAY BE.