



**EASTERN POWER DISTRIBUTION COMPANY OF ANDHRA PRADESH  
LIMITED**

**CORPORATE OFFICE :: VISAKHAPATNAM**

*P&T Colony, Seethammadhara, Visakhapatnam - 530 013*

CIN : U40109AP2000SGC034117

**Circular Memo No. E-422984 -EPCOR- 06002(95)/15/2023-MPS-1-COR**  
**I.No. 486724 /23/ Dt. 06.07.2023**

Sub:- APEPDCL – HRD – MPS – MPP – Filling up of the vacancies of Junior Engineers/El. through Appointment by transfer - Conducting of eligibility test – Inviting of applications through online to appear for written test - Certain instructions – Issued – Reg.

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The APEPDCL has taken a decision to conduct written examination once in a year to the candidates who are requesting for appointment by transfer to the post of Junior Engineers/ Elec., to find out their eligibility/ suitability to the post of Junior Engineers.

2. In view of the above, online applications are invited from the eligible in service candidates (except Energy Assistants (JLM Gr.II)) in any cadre in any service who are approved probationers (i.e. O&M, Accounts & P&G Services) and who are having Diploma qualification in Electrical Engineering to fill up 46 Nos., of Junior Engineer/El. vacancies in APEPDCL through appointment by transfer.

The circle wise break-up vacancies is as follows:

S.No	Name of the Circle	No. of vacancies
1	Srikakulam	6
2	Vizianagaram	7
3	Visakhapatnam	8
4	Rajamahendravaram	7
5	Eluru	18
	Total	46

3. All desirous and eligible candidates, who are seeking appointment by transfer as Junior Engineer/El as per the procedure laid down under shall apply for the written examination to the post of Junior Engineer/ Elec. through online after satisfying themselves that they are eligible as per the terms and conditions of this notification:

- (i) The candidates shall apply for the above available vacancies in the respective circle only where they are presently working and their candidature shall be considered for the above vacancies existing only in the circle concerned.
- (ii) JLM Gr-II employees are not eligible to apply / write the written examination to the post of Junior Engineer/El.
- (iii) Syllabus for written test for the post of Junior Engineers/Elec. is enclosed
- (iv) The exam will be conducted offline mode.
- (v) Test paper contains 100 multiple choice questions.
- (vi) Test will be of 2 hrs. duration.

**Procedure of Selection:**

- The qualified candidates in the written test are only eligible for appointment by transfer to the post of Junior Engineer.
- As per the clarification issued vide Memo No. HRD/MPS/MPP/F.No. 353/12/D.No. 332/13, dt. 07.05.2013, in respect of methodology to be followed for appointment by transfer to the post of Sub-Engineer (Now Junior Engineer) from Accounts, P&G and O&M Services is as follows:

**“In respect of appointment by transfer to the post of Sub-Engineer, the seniority from the date of entry into service shall be considered, if he is otherwise eligible irrespective of date of passing of Diploma in Engineering or any other equivalent qualification”.**

- The section will be made with the qualified candidates as per the above instructions.
- Rule of Reservation will be followed in selection procedure

**Application Procedure:**

- (i) The online applications will be available on the Website (APEPDCL website [www.apeasternpower.com](http://www.apeasternpower.com)). The candidates shall apply online through the APEPDCL website from 07.07.2023 upto on or before 20.07.2023 at 17:00 Hrs.

**Submission of Application:**

The Candidate has to logon to the website <http://www.apeasternpower.com> and click on **the link** on APPLY ONE 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 form through online, the Applicant will get an acknowledgement in the form of a downloadable pdf document.

- (ii) Candidates are required to retain a photocopy of application form with Reference ID for future reference.
- (iii) The applicant is required to visit the website “APEPDCL Website [www.apeasternpower.com](http://www.apeasternpower.com)” regularly to keep himself updated until completion of the selection process. The APEPDCL Website information is final for all correspondence.
- (iv) Submission of online application by the candidate is taken as authentication that he has read the notification and shall abide by the terms and conditions laid down therein.
- (v) Applications sent other than the On-line mode will not be entertained and they are deemed to have been rejected and no further correspondence will be entertained on those applications.
- (vi) Applicant must compulsorily fill-up all relevant fields of application and submit application through online only.
- (vii) Incomplete/incorrect application form will be summarily rejected.
- (viii) The information if any furnished by the candidate subsequently in any form will not be entertained by APEPDCL under any circumstances.
- (ix) The claim of the candidates with regard to the date of birth, educational/technical qualifications and community are accepted only provisionally on the information furnished by them in their application form and is subject to the verification and satisfaction of APEPDCL. Mere admission to any test or inclusion of the name of a candidate in a merit list will not confer on the candidate any right for appointment.

The candidature is therefore provisional at all the stages and APEPDCL reserves the right to reject candidature at any stage of the selection even after the advice has been made.

- (x) If the particulars furnished in the online application form do not tally with the Original documents produced by the Candidates and not falling under the eligibility criteria, their candidature will be rejected.
- (xi) For any information relating to conducting of written test to fill up the post of Junior Engineer/El on appointment by transfer, **please contact 0891-2582445** and information relating to Technical issues on submission of online application **please contact 8125708503** between 10:30Hrs to 13:00Hrs & 14:00Hrs to 17:00Hrs on any working day from between 07.07.2023 to 04.08.2023.

**Tentative Schedule of Activities**

S.No	Particulars	Schedule date
1	Issue of Internal Notification/ Circular	05.07.2023
2	Commencement of Submission of Online Application Form	07.07.2023
3	Last date for submission of Online Applications	20.07.2023 by 17.00 Hrs.
4	Correction of online application data by the candidate	22.07.2023 by 17:00 Hrs.
5	Downloading of Hall Tickets from the website	27.07.2023
6	Date & Time of Examination	30.07.2023 from 11.00 a.m. to 01.00 p.m.
7	Declaration of Preliminary Key	30.07.2023 by 17:00 Hrs
8	Last Date for receiving of objections on Preliminary Key	01.08.2023
9	Declaration of Final Key	02.08.2023
10	Declaration of Results	04.08.2023

4. All the Superintending Engineers/Operation and Executive Engineers are requested to ensure that the employees working under their control are well informed regarding this Circular Memo about the written examination to be conducted for filling up of the post of Junior Engineer/El on appointment by transfer, so that the eligible employees can utilize this Opportunity.

5. Further, they are requested to place the above Circular Memo in their notice boards.

**PRUDHVITEJ IMMADI**  
**CHAIRMAN AND MANAGING DIRECTOR**

To

The Superintending Engineers/Operation/APEPDCL/Srikakulam,  
Vizianagaram, Visakhapatnam, Rajamahendravaram, Eluru  
All the Executive Engineers/ APEPDCL

Copy to:

The EE/Tech to CMD /APEPDCL/ Corporate Office /Visakhapatnam  
The AO to Director(Fin & HRD) /APEPDCL/Corporate Office/Visakhapatnam

The DEE/Tech to Director(Projects)/APEPDCL/Corporate  
Office/Visakhapatnam

The DEE/Tech to Director(Oprns)/APEPDCL/Corporate Office/  
Visakhapatnam

All the Chief General Managers/ APEPDCL/Visakhapatnam

The General Manager/IT

...He is requested to place the above Circular Memo in the APEPDCL  
website.

All the General Managers/APEPDCL/Visakhapatnam

All the Dy.General Managers/APEPDCL/Visakhapatnam

All the Accounts Officers/Exp/APEPDCL

The Accounts Officer/CPR/AEPDCL/Visakhapatnam

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## Junior Engineer in Electrical Engineering syllabus

### BASIC ELECTRICAL ENGINEERING:

Ohms and Kirchhoff's Laws, star / delta transformation, Network theorems. Power and Energy, Heating effects of Electric current, Magnetic effects, Electromagnetic Induction, Electrostatics, Batteries, Types of Electrical Engineering Materials – Conducting, Semiconducting, Magnetic, Insulating, Di-electric – Properties and Uses.

### D.C. MACHINES, BATTERIES & MEASURING INSTRUMENTS:

D.C. Generators: Construction, Operation, types, EMF Equation, Windings, Characteristics, Efficiency and Parallel operation.

DC Motors: Principle of operation, Back EMF, Torque Equation, Types, armature reaction. Characteristics, Starters, Speed Control, Losses, Efficiency and Testing, Batteries.

Measuring Instruments: Classification, Principle of Operation of moving Coil, Moving Iron, Dynamometer type, Induction type meters, Instrument Transformers, Induction type Energy meter, M.D. Indicator, TRI VECTOR Meter, PF meter, Frequency meter, Measurement of Resistance, Transducers and Sensors - Types, Thermistor, Thermocouple, Pressure Transducers and Strain gauges.

### A.C. CIRCUITS AND TRANSFORMERS:

A.C. Circuits: Fundamentals, Series and parallel R-L-C Circuits, Resonant circuits, Polyphase Circuits, Measurement of power by 2 Wattmeter.

Transformer: Single-phase Transformer, Construction, Operation, Equivalent circuit, regulation, efficiency, Testing and Parallel operation, Accessories of Transformers and Cooling. Three-phase Transformers, Auto-Transformers.

### A.C. Machines:

Alternators: Construction, Operation, EMF equation, regulation, testing and parallel operation.

Synchronous Motors: Operation and performance, effects of Excitation, 'V' Curve and inverted 'V'- Curve, methods of Starting and uses.

Three-Phase induction Motors: Construction, Principle of Operation, Torque Equation, Slip-torque characteristics, losses, efficiency, speed control, starters, double-cage motor.

Single-phase Induction Motor: Types, Principle of operation, applications.  
Single-phase Commutator Motors: Types, Principle of operation and applications.

#### POWER SYSTEM GENERATION & PROTECTION:

Generating Stations: Working, Components, Comparison of Thermal, Hydel, Nuclear and Gas Power stations. Pollution control, Combined Working, Power Stations auxiliaries, Characteristic Curves and Important Terms, types of tariffs, power factor correction and economy.

Power Systems Protection: Circuit Breakers - Types, Principles of operation and uses, Current Limiting reactors, Relays - Classification, Principle of Operation of Induction type over current relay, Directional and Non-directional relays, differential relays and distance relays, Protection of alternators, Transformers, Bus-bars, Transmission lines, Lightning arrestors, neutral grounding.

#### TRANSMISSION AND DISTRIBUTION:

Transmission and distribution: Types of supply systems, Transmission line parameters, inductance and capacitance, performance of short and medium lines, regulation, Ferranti effect, Corona, Basic concepts of HVDC Transmission, Advantage and disadvantages of HVDC Transmission.

Components of lines, supports, conductor spacing, ground clearance and sag, insulators, voltage distribution across the string, string efficiency, methods of improving string efficiency, Earthing and layout of sub-stations.

Cables - Classification, insulation resistance, specifications. Distribution – Radial and ring distributors, variation of load voltage.

#### ELECTRICAL ESTIMATION:

Electric Wiring: Tools, Wires, Types of wiring, Accessories, Lamp Circuits, Estimating and costing of domestic, industrial, power, irrigation pump sets, overhead lines and 11 KV Sub Stations, Rural electrification, departmental tests, earthing, maintenance of electrical machines.

## BASIC ELECTRONICS:

Semi-Conductor devices: N type & P type, Zener diode, PNP and NPN Transistors, Transistor configurations, characteristics, power supplies - half and full wave rectifiers, Filters, Zener diode regulation, Special devices - UJT, FET, LED, SCR, Opto-Coupler, Photo diode, Photo Transistor, CRO and Timers.