

TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED

DETAILED NOTIFICATION

RECRUITMENT FOR THE POST OF Sub- Engineer(Elecl.,)

Applications are invited On-line through APTRANSCO WEBSITE www.aptransco.gov.in and <http://aptransco.cgg.gov.in> from **20.01.2012 to 18.02.2012**(to **17.02.2012** for payment of fees) from eligible Diploma holders in EEE for filling up the following vacancies on regular basis in APTRANSCO Engineering Service.

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

| Name of the Zone | Open | L | Total |
|-------------------------|-------------|------------|--------------|
| Visakapatnam | 20 | 47 | 67 |
| Vijayawada | 18 | 43 | 61 |
| Kadapa | 23 | 55 | 78 |
| Hyderabad Metro | 15 | 34 | 49 |
| Hyderabad Rural | 14 | 34 | 48 |
| Warangal | 11 | 25 | 36 |
| Total | 101 | 238 | 339 |

Open: Non-Local & Local

L: Local

These vacancies are subject to variation at the time of recruitment based on the necessity.

Percentage of reservation: BC-25% + 4% Muslim reservation subject to orders of Government from time to time.
SC- 15%, ST-6%, PH-3%
33 1/3 % reservation for women is applicable as per rules.

FEE:

- i) Each applicant must pay Rs. 150/- (Rupees One hundred and fifty only) towards Application Processing Fee.
- ii) Applicants under General category must also pay **RS.350/- (Rs Three hundred and fifty Only)** towards Examination Fee. (Applicants belonging to SC/ST/BC Communities and PH need not pay this fee).
- iii) Candidates belonging to States other than Andhra Pradesh will be considered in general category only and are required to pay the above-prescribed fee of Rs.350/- (**Rs Three hundred and fifty Only**).

NOTE: *The fee once paid will not be refunded at any cost.*

Starting date for Payment of Fee and Application submission is **20.01.2012**.

Last date for payment of Fee at AP Online is **17.02.2012**.

Last date for submission of Application is **18.02.2012 up to 7:00 PM**.

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Detailed notification for Sub - Engineer (Elect.)
INSTRUCTIONS

I. Instructions for Scanning of Photograph with Signature

Photo width= 3.5cm



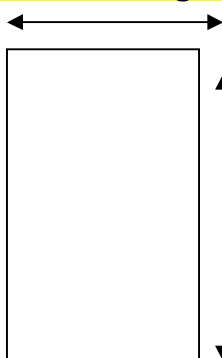
Photo Height= 4.5cm

Signature Space = 1.5 cm



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 colors etc., during the process of scanning.
6. The candidate has to sign in full in the box provided. Since the signature is proof of identity, it must be genuine and in full; 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
- Dpi setting = 200 dpi
- True Colour

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

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II. ELIGIBILITY:

i. Age: Age not below 18 years and not above 36 years as on **01.07.2011**
Relaxation in upper age limits permissible upto 5 years for SC/ST/BC candidates and up to 10 years for Physically Handicapped candidates.

For in service contract workers, working in this Organization, the age at the time of entry into the organization as contract worker will be considered.

ii. EDUCATIONAL QUALIFICATIONS:

Must possess a Diploma in Electrical Engineering (or) Graduation in Electrical Engineering in addition to Diploma in Electrical Engineering (or) any other equivalent qualification recognized by the Board/ Government of A.P./India/UGC/DEC/AICTE as the case may be.

NOTE: If there is any deviation from the above qualification for the above post, the candidates shall produce the equivalency certificate from the authority issuing the qualification certificate viz Registrar of the University or Secretary of the institute for accepting his/her application.

iii. Selection Procedure:

- 1) Evaluation will be done on a scale of 100 marks with a maximum of 55 marks for written examination and a maximum of 45 marks for in service experience in the organization as contract worker.
- 2) No interviews will be conducted.
- 3) Selection shall be made duly following the Rule of Reservation for SC, ST, BC and Physically Handicapped, and as per the **presidential order**. 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.
- 4) The minimum qualifying marks in the written test for the above selection process shall be as follows:

| | | |
|-------|---|-----|
| OC | - | 40% |
| BC | - | 35% |
| SC&ST | - | 30% |
| PH | - | 30% |

Or as per rules.

- 5) Only those candidates who qualify in the written examination by being ranked high, community wise will be called for verification of Original Certificates in 1:1 ratio.
- 6) The in-service contract worker who have been working in **APTransco/Discoms** will be given weightage marks to a maximum of 45, depending on the length of the service in **APTransco/Discoms** i.e. 2 ½ marks per every half year (i.e. 180 days) service as contract worker as per the memorandum of settlement dt.18.12.2010 reached before the Additional Commissioner of Labour and Conciliation Officer, Government of A.P. between representatives of APTRANSCO and recognized Trade Unions. Any disruption or discontinuation of service for a continuous period of 180 days and above for whatever the reason 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.

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- 7) In service contract worker shall submit service certificate from the concerned Divisional Engineer evidencing length of service, and continuity of in service as contract worker/with recorded evidence through sub-station Log Books to be certified by the concerned Divisional Engineer.

OR

With recorded evidence of EPF No in his name to be certified by the concerned DE.

- 8) For computation of period of contract service, the date of joining on such service shall be reckoned and the period of service up to the date of notification shall be computed.
- 9) Brake in service should not exceed more than six months for computation of weightage of marks.

NOTE:

Mere securing minimum qualifying marks doesn't vest, any right to a candidate

for being called for verification of original certificates.

IV. Details of Written Examination:

- i) **Syllabus:** The syllabus for the written examination is placed at Annexure I.
- ii) **Hall Tickets:** The hall tickets will be placed on the website seven days prior to the date of examination. The candidate has to download the Hall ticket from the website only. Hall tickets will not be sent to the candidates by post.
- iii) **Date of examination:** The written examination for recruitment of Sub-Engineer/Elec, will be held on **04.03.2012** at **10 AM to 12 Noon.**
- iv) **Examination Centers:** The written examination for recruitment of Sub-Engineer Elec., will be held at Visakhapatnam, Vijayawada, Kadapa, Warangal, & Hyderabad
- v) **Instructions to Candidates at the time of Written Examination:**

1. The test is of two hours duration. The date and time will be indicated on the Hall ticket. Candidates should reach the test center in time. Candidates will be allowed in to the examination hall half an hour before the scheduled starting time. Candidates will not be allowed into the examination hall after the test has started and will not be permitted to leave examination hall before the closure of test time under any circumstances.

2. The test will be of objective type with multiple-choice questions with only one answer being correct among the four alternatives suggested.

3. A separate O M R (Optical mark Reader) answer sheet will be provided to the candidates. The candidate has to indicate his response to each question by darkening the appropriate bubble with a HB Pencil.

4. The candidate has to bring a good quality HB Pencil, eraser, sharpener and blue/black pen or ball point pen to the examination hall.

5. The candidate has to follow meticulously all the instructions given on the question paper booklet and OMR Answer Sheet, else his answer sheet may not be valued.

6. Usage of Calculators/mathematical tables is not permitted. Candidates should not bring cell phones or any other electronic gadgets to the examination hall.

V. TERMS AND CONDITIONS OF SERVICE:

1. **Scale of Pay: Rs.** 11545-485-13000-650-16250-800-20250-955-23115
2. **Training cum Probation:** The candidates appointed to the post shall be placed on Training-cum-Probation for a period of 2 years.
3. **Place of posting:** The candidates appointed shall be required to work at the substations of APTRANSCO.

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4. The candidate will be governed by the rules and regulations applicable or as framed by the AP Transco and as amended from time to time. The Tripartite Agreement entered into between the APSEB, Govt of A.P and the Employees Associations is not applicable to these candidates and they shall at no stage be entitled to claim any right what so ever arising out of the said Tripartite Agreement.

VI. EXECUTION OF BOND :

- (i) The candidates appointed will be required to execute a Bond (in Non-Judicial stamp paper worth Rs.110/- (Rupees One hundred and ten only) at the time of joining, to serve APTRANSCO for a MINIMUM period of 5 Years after completion of Training-cum-Probation period (2 years).
- (ii) During the above bond period the candidates will deposit his/her original certificates such as Degree, date of birth and community, etc with APTRANSCO. The Certificates so deposited with APTRANSCO shall not be returned during the above bond period.
- (iii) The Candidate who leaves the APTRANSCO service during the Training-cum-Probation period shall refund the emoluments received by him/her plus **Rs.30,000 (Rupees Thirty Thousand only)** by way of liquidated damages.
- (iv) The Candidate who leaves the APTRANSCO service without serving a minimum period of 5 years after completion of Training-cum-Probation period shall have to pay a sum of **Rs.60,000 (Rupees Sixty Thousand Only)** by way of liquidated damages to the Corporation.

VII. HOW TO APPLY:

HOW TO UPLOAD THE APPLICATION FORM:

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

I Step:- **Payment of Fee:** The Applicant should pay the prescribed Fee as per the notification in any one of the A.P. Online centers and obtain Fee paid receipt with Journal Number 12 digit in the first instance. Applicants can also pay the fee through APOne portal.

II Step:- Submission of Application: After payment of Fee, the Candidate has to logon to the website [http:// www.aptransco.gov.in](http://www.aptransco.gov.in) and click on **APPLY ONLINE** link or directly visit <http://aptransco.cgg.gov.in> to view the detailed notification, User Guide and Application Form. The applicants have to provide payment details (journal number and date) and upload the scanned copy of passport size photograph with signature (see instructions for scanning and uploading photograph with signature) and then invariably fill all the relevant fields in the Application. Immediately on submission of application, applicant will get an acknowledgement in the form of a downloadable pdf document.

NOTE:

1. 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 online.
2. Candidates are required to retain a photocopy of application form with **Reference ID** for future reference.
3. Candidates have to submit application only through online mode well in advance of the last date to avoid last day rush.
4. **Hand written/ Typed/ Photostat copies/ Outside printed Application Form will not be accepted and liable for rejection.**
5. Only applicants willing to serve anywhere in the Andhra Pradesh should apply.

6. For any problems related to Online submission and downloading of Hall-Tickets please contact **Help Desk No.** _____ (Call Time: 10:30 A.M to 1:00 P.M & 2:00 P.M to 5:00 P.M) or log on to <http://aptransco.cgg.gov.in> click on to complaint box.

VIII. FEE:

- i) Each applicant must pay Rs. 150/- (Rupees One hundred and fifty only) towards Application Processing Fee.
- ii) Applicants under General category must also pay **RS.350/- (Rs Three hundred and fifty Only)** towards Examination Fee. (Applicants belonging to SC/ST/BC Communities and PH need not pay this fee).
- iii) Candidates belonging to States other than Andhra Pradesh will be considered in general category only and are required to pay the above-prescribed fee of Rs.350/- **(Rs Three hundred and fifty Only)**.

Mode of Payment of Fee: The Applicant should pay the prescribed Fee in any one of the A.P. Online centers and obtain Fee paid receipt with Journal Number(12 digit) in the first instance. Applicants can also pay the fee through AP Online portal.

Submission of Application: After payment of Fee, the Candidate has to logon to the website [http:// www.aptransco.gov.in](http://www.aptransco.gov.in) and click on **APPLY ONLINE** link or directly visit <http://aptransco.cgg.gov.in> to view the detailed notification, User Guide and Application Form. The applicants have to invariably fill all the relevant fields in the Application. Immediately on submission of application the Applicant will get an acknowledgement in the form of a downloadable pdf document.

NOTE:

1. AP Transco 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. Applicant must compulsorily fill-up all relevant **fields** of application and submit application through website only.
3. Incomplete/incorrect application form will be summarily rejected. AP Transco 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/she comes through the final stage of recruitment process or even at a later stage.
4. Before payment of fee, submission of application form, the candidates should carefully ensure his/her eligibility for this **notification**. No relevant column of the application form should be left blank; otherwise application form will not be accepted.
5. The applications received online in the prescribed proforma available in the website and within the time shall only be considered and the AP Transco will not be held responsible for any kind of discrepancy.
6. Applicants must compulsorily upload his/her own scanned photo with signature in jpg format only.

General

- The candidate should not furnish any false tampered, fabricated information or suppress any material information while filling up the application form.
- Candidates called for verification of certificates will be required to furnish documentary proof in evidence of the following as and when called for.

- a) Age: Proof of age as recorded in SSC certificate or equivalent.
- b) Qualification: Diploma in Electrical Engineering (or) any other equivalent qualification recognized by the Board/ Government of A.P./Indai/UGC/DEC/AICTE as the case may be.
- c) Permanent Community certificate issued by MRO in original or Original caste certificate issued by Revenue Officer not less than the rank of MRO issued on or after 01.07.2011 in respect of SC/ST & BC candidates clearly indicating the Sub-Caste and group.
- d) Physically Handicapped certificate indicating the minimum 40% of disability issued by District Medical Board.
- e) Study Certificate from IV to X Class.
- f) 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 (In respect of candidates who have not studied in any Educational Institutions up to SSC).
- g) In service contract worker shall submit service certificate from the concerned Divisional Engineer evidencing length of service, and continuity of in service as contract worker/with recorded evidence through sub-station Log Books to be certified by the concerned Divisional Engineer. **OR**
With recorded evidence of EPF No in his name to be certified by the concerned DE.
- h) Latest Pass Port size Photo.

- Candidates will be required to appear for written test as and when conducted at their own cost.
- Admission for written test or calling the qualified candidates in the written test to furnish documentary proof does not confer any right for appointment.
- The degrees awarded by the Universities/institutions that are recognized by the U.G.C, D.E.C (Under IGNOU) and AICTE as the case shall only be considered.
- The decision of the Selection Committee/AP TRANSCO is final in selection and allotment of candidates.
- Disqualification:- Conviction in Criminal cases involving moral turpitude declared insolvent.
- Medical fitness certificate should be furnished at the time of joining

IX. BREAK UP OF VACANCIES

Consequent to implementation of the spirit of A. P. Public Employment (Organization of Local Cadres & Regulation of Direct Recruitment) order, 1975 which popularly known as "The Presidential Order" in APTRANSCO, the break-up of vacancies, Zone-wise, are as follows:

| Name of the Zone | Sub-Engineer/ Electrical | | |
|------------------|--------------------------|------------|------------|
| | Open | L | Total |
| Visakapatnam | 20 | 47 | 67 |
| Vijayawada | 18 | 43 | 61 |
| Kadapa | 23 | 55 | 78 |
| Hyderabad Metro | 15 | 34 | 49 |
| Hyderabad Rural | 14 | 34 | 48 |
| Warangal | 11 | 25 | 36 |
| Total | 101 | 238 | 339 |

Open:Non-Local & Local ;

L- Local

COMMUNITY WISE BREAK-UP OF VACANCIES:

| Zones | OC | | BC-A | | BC-B | | BC-C | | BC-D | | BC-E | | SC | | ST | | PH | | Total |
|--------------------------|----|----|------|---|------|---|------|---|------|---|------|---|----|---|----|---|-------|-------|------------|
| | G | W | G | W | G | W | G | W | G | W | G | W | G | W | G | W | G | W | |
| Visakhapatnam | 22 | 11 | 3 | 2 | 3 | 2 | 1 | - | 2 | 2 | 1 | 1 | 6 | 4 | 2 | 2 | 2 | 1(VH) | 67 |
| Vijayawada | 20 | 10 | 3 | 2 | 3 | 2 | 1 | - | 2 | 1 | 1 | 1 | 5 | 3 | 2 | 2 | 2 | 1(VH) | 61 |
| Kadapa | 24 | 13 | 4 | 2 | 4 | 2 | 1 | - | 3 | 2 | 2 | 1 | 8 | 4 | 3 | 2 | 2 | 1(VH) | 78 |
| Hyderabad (Metro) | 16 | 7 | 2 | 2 | 2 | 2 | 1 | - | 2 | 1 | 1 | 1 | 4 | 3 | 2 | 1 | 1(HH) | 1(VH) | 49 |
| Hyderabad (Rural) | 16 | 7 | 2 | 2 | 2 | 1 | 1 | - | 2 | 1 | 1 | 1 | 4 | 3 | 2 | 1 | 1(HH) | 1(VH) | 48 |
| Warangal | 11 | 6 | 2 | 1 | 2 | 1 | 1 | - | - | 1 | - | 1 | 3 | 2 | 2 | 1 | 1(HH) | 1(VH) | 36 |
| TOTAL | | | | | | | | | | | | | | | | | | | 339 |

G – General; W - Women PH – Physically Handicapped.

X. ZONAL/ LOCAL:

The select list will be drawn into two parts. The first part will comprise 30% of the posts consisting of combined merit list of local as well as non-locals and the remaining second part will comprise the balance 70% of the posts consisting of locals only and the posts will be filled only following the rule of reservation.

a) The candidates will be selected and allotted to Zones/Sub Stations as per their Rank in the merit list and as per zonal preferences for allotment of non-local candidates against vacancies available. Selection shall be made on State Wide merit, in respect of non-local candidates and allotment of Zones shall be made as per the preference given by candidates against the actual vacancies.

b) While the Corporation calls for preference of candidates in respect of zones 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. Therefore, the APTRANSCO has the power to assign a successful candidate to any of the notified posts in the Zone in respect of non-local candidates, for which he/she is considered to be qualified and eligible, subject to fulfilling the selection criteria. 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.

RESERVATION TO LOCAL CANDIDATES:

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 (from class IV to X) or Residence Certificate in the proforma only for those candidates who have not studied in any Educational Institutions as the case may be . The relevant certificates may be got ready with authorized signature and kept with the candidates as and when required.

DEFINITION OF LOCAL CANDIDATE:

- (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 (i) 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 determine 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 of Local candidature is based on study, the candidate is required to produce a certificate from the Educational Institution(s) where he/she has studied during the said 4/7 year period .If, however, it is based on residence, a certificate should be obtained from an officer of the Revenue Department not below the rank of a Tahsildhar in independent charge of a Mandal
- (iv) If, however, a candidate has resided in more than one Mandal during the relevant 4/7 years period but with in the same District or Zone as the case may, be separate certificates from the Tahsildhars 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. Resident 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.
- C. Each of the following Zones comprises the Districts mentioned against each Zone

| Sl. No. | Zones | Districts |
|---------|-------------------------|---|
| 1 | Visakhapatanam (VSP) | Srikakulam, Vizianagaram, Visakapatnam, East Godavari & West Godavari |
| 2 | Vijayawada (VJA) | Krishna, Guntur, Prakasham & Potti Sreeramulu Nellore |
| 3 | Kadapa (KDP) | Chitoor, Kadapa, Anantapur & Kurnool. |
| 4 | Hyderabad-Metro Hyd (M) | Hyderabad & Rangareddy. |
| 5 | Hyderabad-Rural Hyd(R) | Mahboobnagar, Medak & Nalgonda |
| 6 | Warangal (WGL) | Adilabad, Karimnagar, Warangal, Khammam & Nizamabad |

Presidential Order is not applicable to Corporate Head Office.

ANNEXURE SYLLABUS

I. ELECTRICAL MACHINES:

D.C. GENERATORS And MOTORS: Expression for emf equation of D.C. Generator, armature windings, armature reaction, types of generators, characteristics. Torque equation of D.C. Motor, characteristics, speed control, starters, losses and efficiency. Testing of D.C. Machines.

TRANSFORMERS: emf equation of single phase transformer, operation of transformer on load, equivalent circuit, vector diagram, open-circuit and short-circuit tests, voltage regulation, losses and efficiency, all-day efficiency, parallel operation of single-phase transformers with equal voltage ratios. Voltage and current relations for three-phase transformer connections. Principle of operation of auto-transformer. Cooling of power transformer, Operation of Buchholz's relay.

ALTERNATION AND SYNCHRONOUS MOTORS: Salient-pole and cylindrical rotor types of construction. Alternator EMF equation and windings, armature reaction, voltage regulation using synchronous impedance, open-circuit and short-circuit tests, voltage variation against load currents at different power factors, parallel operation of alternators; synchronization by lamps method and synchroscope.

Synchronous motors: Starting methods, effect of change of excitation at constant load, V-curves, Hunting, synchronous condenser.

THREE-PHASE INDUCTION MOTORS: Constructional aspects of cage and wound rotor types of induction motors, expression for torque, torque-slip characteristics, full load torque, starting torque and maximum torque, effects of variation of rotor resistance; losses and efficiency; different starting methods; speed control methods.

SINGLE-PHASE INDUCTION MOTORS AND COMMUTATOR MOTORS:

Constructional features and operation of single-phase induction motors: split phase, capacitor and shaded pole types. Principle of operation of A.C. series motor, universal motor, Schrage motor.

II. POWER GENERATION AND SWITCHGEAR AND PROTECTION:

HYDRO-POWER PLANTS: Functions of different components of Hydel stations, water power equation, surge tank, choice of turbines, storage and pondage; base load and peak load operation, pumped storage plant.

THERMAL POWER PLANTS: Plant line diagram and functions of different components of coal-fired steam power plant; boilers, steam turbines, condensers, superheater, economizer, cooling towers, chimney.

NUCLEAR PLANT: Schematic arrangement and functions of different components in nuclear power reactor.

COMBINED OPERATION OF POWER PLANTS AND ECONOMIC ASPECTS:

Advantage of combined operation of Hydel and Thermal power plants; Load and Load duration curves, load factor, diversity factor and demand factor, capacity factor; types of tariffs, factors influencing tariff design.

FAULTS AND SWITCHING APPARATUS: Short-circuit calculations; fuses and isolators; circuit breakers: theory of arc interruption and different types of oil circuit breakers; lightning arresters and their selection and location.

PROTECTIVE RELAYING: Basic requirements of protective relaying, primary and back-up protection; classification of electromagnetic relays and their principles of operation; time current characteristic curves; induction type over-current relay, distance relays; Merz price protection, differential protection of transformers, bus bar protection.

III. TRANSMISSION AND DISTRIBUTION:

LINE CONDUCTORS, LINE SUPPORTS AND SAG CALCULATIONS:

Different types of line conductors, conductor sizes commonly used for different voltage levels, Types of line supports, factors influencing the selection, cross-arms; spans, conductor spacings and ground clearances. Sag calculations and stringing charts.

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TRANSMISSION LINE PARAMETERS: Determination of inductance and capacitance of round and parallel conductors in single phase and three-phase symmetrically spaced lines.

PERFORMANCE OF LINES: Choice of voltage; short, medium and long lines; calculation of sending-end voltage, regulation and efficiency for short lines; nominal Π and nominal-T methods; Ferranti effect; corona: critical voltages and factors affecting corona.

INSULATORS AND SUBSTATIONS:

Different types of insulators: Pin type, strain type, suspension type and relative merits; voltage distribution across string of suspension insulators, string efficiency and methods of improving arcing horns. Equipment used in substations, bus-bar arrangements.

CABLE AND DISTRIBUTION SYSTEMS: Comparison between overhead lines and under ground cable. Types of cables, insulation resistance; localization of cable faults. Primary and secondary distribution; Feeders and service mains; radial and ring systems of distribution; singlephase a.c. distribution.

IV. MEASURING INSTRUMENTS AND ELECTRIC CIRCUITS:

MEASURING INSTRUMENTS: Indicating instruments: deflecting, controlling and damping torques, pointers and scales; ammeters and voltmeters: moving coil, moving iron, dynamometer, induction types; instrument transformers: C.T and P.T., Wattmeters and measurement of power in three phase systems by two-wattmeter method; measurement of energy: Energy meters; M.D. indicators; trivector meter.

ELECTRIC CIRCUITS: Fundamentals of alternating current quantities, sinusoidal waveform; average and effective values; J-notation for A.C quantities; polar form; single phase series and parallel circuits; impedance triangle, phase, power factor, active and reactive components of power; series and parallel resonance. Three-phase star and delta balanced systems.

V. UTILIZATION OF ELECTRICAL ENERGY:

ELECTRIC DRIVES: Factors governing selection of motors; matching of motors with given loads; electric braking; rating of motor; types of enclosures; motors for particular drive.

ILLUMINATION: Definitions of commonly used terms and units; types of lamps; requirement of good lighting; laws of illumination; terms like : depreciation factor, utilization factor, waste light factor, luminous efficiency, specific energy consumption, space height ratio.

ELECTRIC HEATING AND WELDING: Requirements of good heating materials, materials generally employed, resistance heating; electric furnace; induction heating; dielectric heating welding generator and transformers.

MODEL QUESTIONS

For each of the multiple choice type questions given below blacken the oval corresponding to the correct answer in the O M R Sheet.

1. The form factor for sinusoidal waveform is
1) 1.00 2) 1.11 3) 1.732 4) 2.2
2. The rotor resistance and reactance of a three-phase induction motor is 0.2 ohm and 2 ohm respectively. The per unit slip corresponding to maximum torque is equal to
1) 9.02 2) 0.01 3) 0.1 4) 0.2
3. Load factor is defined as the ratio of
1) Average power demand to maximum power demand
2) Minimum power demand to maximum power demand
3) Maximum power demand to minimum power demand
4) Average power demand to minimum power demand
4. The unit of luminous flux is
1) lux 2) candle power 3) metre candle 4) lumen
5. For 132 KV transmission line, the insulators commonly used are
1) Strain type 2) Pint type 3) Suspension type 4) Shackle type

TRANSMISSION CORPORATION OF ANDHRA PRADESH LIMITED

DETAILED NOTIFICATION

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RECRUITMENT FOR THE POST OF Junior Assistants (LDC)

Applications are invited On-line through APTRANSCO WEBSITE www.aptransco.gov.in and <http://aptransco.cgg.gov.in> from **20.01.2012** to **18.02.2012 (to 17.02.2012 for payment of fees)** from eligible Graduates for filling up the following vacancies on regular basis in APTRANSCO Accounts Service.

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

| Name of the Zone | Open | Local |
|-------------------------|-------------|----------------------------|
| Visakhapatnam | OC(W) - 01 | SC (W) - 01 OC (G) - 01 |
| Vijayawada | OC(W) - 01 | SC (W) - 01 OC (G) - 01 |
| Kadapa | OC(W) - 01 | SC (W) - 01 OC (G) - 01 |
| Hyderabad (Metro) | OC(W) - 01 | SC (W) - 01 OC (G) - 01 |
| Hyderabad (Rural) | OC(W) - 01 | SC (W) - 01 |
| Warangal | OC(W) - 01 | SC (W) - 01 |

Open: Non-Local & Local G: General W: Women

These vacancies are subject to variation at the time of recruitment based on the necessity.

FEE:

- i) Each applicant must pay Rs. 150/- (Rupees One hundred and fifty Only) towards Application Processing Fee.
- ii) Applicants under General category must also pay **RS.350/- (Rs.Three hundred and fifty ONLY)** towards Examination Fee. (Applicants belonging to SC/ST/BC Communities and PH need not pay this fee).
- iii) Candidates belonging to States other than Andhra Pradesh will be considered in general category only and required to pay the above-prescribed fee of **Rs.350/- (Rs. Three hundred and fifty Only)**.

NOTE: *The fee once paid will not be refunded at any cost.*

Starting date for Payment of Fee and Application submission is **20.01.2012**.

Last date for payment of Fee at AP Online is **17.02.2012**

Last date for submission of Application is **18.02.2012 up to 7 P.M**

Cont..2

INSTRUCTIONS

I. Instructions for Scanning of Photograph with Signature

Photo width= 3.5cm

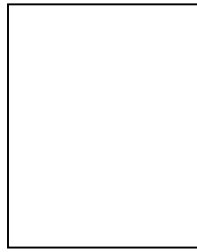


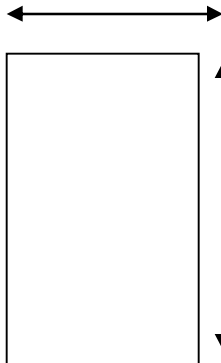
Photo Height= 4.5cm

Signature Space = 1.5 cm



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 colors etc., during the process of scanning.
6. The candidate has to sign in full in the box provided. Since the signature is proof of identity, it must be genuine and in full; 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
- Dpi setting = 200 dpi
- True Colour

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

II. ELIGIBILITY:

1. AGE:

- Age not below 18 years and not more than 36 years as on **01.07.11** upper age limit will be relaxed up to 5 years in respect of SC/ST/BC candidates and up to 10 years in respect of P.H candidates and Ex-Servicemen 3 years and length of service rendered in the armed forces.
- For in-service contract workers working in the Organization, the age at the time of entry into the organization as contract worker will be considered.

2. EDUCATIONAL QUALIFICATIONS:

Junior Assistants:

Must hold the degree of B.A. or B.Com., or B.Sc. of any university recognized in India, established or incorporated by or under a Central Act, Provincial Act or State Act **(or)** any equivalent qualification.

and

Must have passed certificate course in Computer Application/Office Automation (MS-Office) offered by the Institutions recognized by the Govt. of A.P.

Note: Candidates possessing one of the subjects as computer in the Degree (B.A/B.Com/B.Sc) need not require to have certificate in computer course.

NOTE: If there is any deviation from the above qualification for the above post, the candidates shall produce the equivalency certificate from the authority issuing the qualification certificate viz Registrar of the University or Secretary of the Institute for accepting his/her application.

III. SELECTION PROCEDURE:

The selection of candidates for appointment as Junior Assistants will be as follows:

- i) Evaluation will be done on a scale of 100 marks with a maximum of **55 marks for written examination** and a maximum of **45 marks for in-service experience** in the organization as Contract Worker.
- ii) No interviews will be conducted.
- iii) Selection shall be made duly following the Rule of Reservation for SC, ST, BC & Physically Handicapped/Ex-Servicemen, and as per the **presidential order**.
- iv) Only those candidates who qualify in the written examination by being ranked high, community wise will be called for verification of Original Certificates in 1:1 ratio.
- v) The minimum qualifying marks in the written test for the above selection process shall be as follows:

| | | |
|-------|---|-----|
| OC | - | 40% |
| BC | - | 35% |
| SC/ST | - | 30% |
| PH | - | 30% |

Or as per Rules
- vi) The in-service contract worker who have been working in the organizations of **APTransco/Discoms** will be given weightage marks to a maximum of 45, depending on the length of the service in **APTransco/Discoms** i.e. 2 ½ marks per every half year (i.e. 180 days) service as contract worker as per the memorandum of settlement dt:18.12.2010 reached before the Additional Commissioner of Labour and Conciliation Officer, Govt. of A.P. between representatives of APTransco and recognized Trade Unions. Any disruption or discontinuation of service for a continuous period of 180 days and above for whatever the reason 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.
- vii) In-service contract worker shall submit service certificate from the concerned Divisional Engineer evidencing length of service, and continuity of in-service as contract worker/with recorded evidence through sub-station Log Books to be certified by the concerned Divisional Engineer. **OR**
With recorded evidence of EPF No in his name to be certified by the concerned Divisional Engineer.
- viii) For computation of period of contract service, the date of joining on such service shall be reckoned and the period of service up to the date of notification shall be computed.

- ix) Break in service should not exceed more than six months for computation of weightage of marks.

Note: Mere securing minimum qualifying marks doesn't vest, any right to a candidate for being called for verification of original certificates.

IV. Details of Written Examination:

- i) **Syllabus:** The syllabus for the written examination is placed at Annexure.
- ii) **Hall Tickets:** The hall tickets will be placed on the website seven days prior to the date of examination. The candidate has to download the Hall ticket from the website only. Hall tickets will not be sent to the candidates by post.
- iii) **Date of examination:** The written examination for recruitment of Junior Assistant, will be held on **04.03.2012 at 3 PM to 5 PM.**
- iv) **Examination Centers:** The written examination for recruitment of Junior Assistant will be conducted at Visakhapatnam, Vijayawada, Kadapa, Warangal, and Hyderabad.
- v). **Instructions to Candidates at the time of Written Examination:**

1. The test is of two hours duration. The date and time will be indicated on the Hall ticket. Candidates should reach the test center in time. Candidates will be allowed into the examination hall half an hour before the scheduled starting time. Candidates will not be allowed into the examination hall after the test has started and will not be permitted to leave examination hall before the closure of test time under any circumstances.
2. The test will be of objective type with multiple-choice questions with only one answer being correct among the four alternatives suggested.
3. A separate O M R (Optical mark Reader) answer sheet will be provided to the candidates. The candidate has to indicate his/her response to each question by darkening the appropriate bubble with a HB Pencil.
4. The candidate has to bring a good quality HB Pencil, eraser, sharpener and blue/black pen or ball point pen to the examination hall.
5. The candidate has to follow meticulously all the instructions given on the question paper booklet and OMR Answer Sheet, else his answer sheet may not be valued.
6. Usage of Calculators/mathematical tables is not permitted. Candidates should not bring cell phones or any other electronic gadgets to the examination hall.

V. TERMS AND CONDITIONS OF SERVICE:

1. **Scale of Pay: Rs.** 10520-325-12145-400-14145-485-16570-590-19520
2. **Training:** The candidates appointed to the post shall be placed on Training for a period of **2 years.**
3. The candidate will be governed by the rules and regulations applicable or as framed by the AP Transco and as amended from time to time. The Tripartite Agreement entered into between the APSEB, Govt of A.P and the Employees Associations is not applicable to these candidates and they shall at no stage be entitled to claim any right what so-ever arising out of the said Tripartite Agreement.

VI. HOW TO APPLY:

HOW TO UPLOAD THE APPLICATION FORM:

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

I Step:- Payment of Fee: The Applicant should pay the prescribed Fee as per the notification in any one of the A.P. Online centers and obtain Fee paid receipt with Journal Number 12 digit in the first instance. Applicants can also pay the fee through AP Online portal.

II Step:- Submission of Application: After payment of Fee, the Candidate has to logon to the website [http:// www.aptransco.gov.in](http://www.aptransco.gov.in) and click on **APPLY ONLINE** link or directly visit <http://aptransco.cgg.gov.in> to view the detailed notification, User Guide and Application Form. The applicants have to provide payment details (journal number and date) and upload the scanned copy of passport size photograph with signature (see instructions for scanning and uploading photograph with signature) and then invariably fill all the relevant fields in the Application. Immediately on submission of application, applicant will get an acknowledgement in the form of a downloadable PDF document.

NOTE:

1. 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 online.
2. Candidates are required to retain a photocopy of application form with **Reference ID** for future reference.
3. Candidates have to submit application only through online mode well in advance of the last date to avoid last day rush.
4. **Hand written/ Typed/ Photostat copies/ Outside printed Application Form will not be accepted and liable for rejection.**
5. Only applicants willing to serve anywhere in the Andhra Pradesh should apply.
6. For any problems related to Online submission and downloading of Hall-Tickets please contact **Help Desk No. _____** (Call Time: 10:30 A.M to 1:00 P.M & 2:00 P.M to 5:00 P.M) or log on to <http://aptransco.cgg.gov.in> click on to complaint box.

VIII. FEE

- i) Each applicant must pay Rs. 150/- (Rupees One hundred and fifty Only) towards Application Processing Fee.
- ii) Applicants under General category must also pay **RS.350/- (Rs.Three hundred and fifty ONLY)** towards Examination Fee. (Applicants belonging to SC/ST/BC Communities and PH need not pay this fee).
- iii) Candidates belonging to States other than Andhra Pradesh will be considered in general category only and required to pay the above prescribed fee of **Rs.350/- (Rs. Three hundred and fifty Only).**

Mode of Payment of Fee: The Applicant should pay the prescribed Fee in any one of the A.P. Online centers and obtain Fee paid receipt with Journal Number (12 digit) in the first instance. Applicants can also pay the fee through AP Online portal.

Submission of Application: After payment of Fee, the Candidate has to logon to the website [http:// www.aptransco.gov.in](http://www.aptransco.gov.in) and click on **APPLY ONLINE** link or directly visit <http://aptransco.cgg.gov.in> to view the detailed notification, User Guide and Application Form. The applicants have to invariably fill all the relevant fields in the Application. Immediately on submission of application the Applicant will get an acknowledgement in the form of a downloadable pdf document.

NOTE:

1. AP Transco 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. Applicant must compulsorily fill-up all relevant **fields** of application and submit application through website only.
3. Incomplete/incorrect application form will be summarily rejected. AP Transco 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/she comes through the final stage of recruitment process or even at a later stage.
4. Before payment of fee, submission of application form, the candidates should carefully ensure his/her eligibility for this **notification**. No relevant column of the application form should be left blank; otherwise application form will not be accepted.
5. The applications received online in the prescribed proforma available in the website and within the time shall only be considered and the AP Transco will not be held responsible for any kind of discrepancy.
6. Applicants must compulsorily upload his/her own scanned photo with signature in jpg format only.

General

- The candidate should not furnish any false tampered, fabricated information or suppress any material information while filling up the application form.
- Candidates called for verification of certificates will be required to furnish documentary proof in evidence of the following as and when called for.
 - a) Age: Proof of age as recorded in SSC certificate or equivalent.
 - b) Qualification of Graduation from any recognized University in India or any equivalent qualification.

And

Candidate should possess certificate course in Computer Application/ Office Automation (MS-Office) offered by the Institutions recognized by the Government of Andhra Pradesh.
 - c) Permanent Community certificate issued by MRO in original or Original caste certificate issued by Revenue Officer not less than the rank of MRO issued on or after 01.07.2011 in respect of SC/ST & BC candidates clearly indicating the Sub-Caste and group.
 - d) Physically Handicapped certificate indicating the minimum 40% of disability issued by District Medical Board.
 - e) Study Certificate from IV to X Class.
 - f) 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 (In respect of candidates who have not studied in any Educational Institutions up to SSC).
 - g) In-service contract worker shall submit service certificate from the concerned Divisional Engineer evidencing length of service, and continuity of in-service as contract worker/with recorded evidence through sub-station Log Books to be certified by the concerned Divisional Engineer. **OR**
With recorded evidence of EPF No in his name to be certified by the concerned DE.
 - h) Latest Pass Port size Photo.
- Candidates will be required to appear for written test as and when conducted at their own cost.

- Admission for written test or calling the qualified candidates in the written test to furnish documentary proof does not confer any right for appointment.
- The degrees awarded by the Universities/institutions that are recognized by the U.G.C, D.E.C (Under IGNOU) and AICTE as the case shall only be considered.
- The decision of the Selection Committee/AP TRANSCO is final in selection and allotment of candidates.
- Disqualification:- Conviction in Criminal cases involving moral turpitude/ declared insolvent.
- Medical fitness certificate should be furnished at the time of joining.

VIII. BREAK UP OF VACANCIES

Consequent to implementation of the spirit of A. P. Public Employment (Organization of Local Cadres & Regulation of Direct Recruitment) order, 1975 which popularly known as "The Presidential Order" in APTRANSCO, the break-up of vacancies, Zone-wise, are as follows:

| Name of the Zone | No. of Posts | Open | Local |
|-------------------------|---------------------|-------------|----------------------------|
| Visakhapatnam | 03 | OC(W) - 01 | SC (W) - 01 OC (G) - 01 |
| Vijayawada | 03 | OC(W) - 01 | SC (W) - 01 OC (G) - 01 |
| Kadapa | 03 | OC(W) - 01 | SC (W) - 01 OC (G) - 01 |
| Hyderabad (Metro) | 03 | OC(W) - 01 | SC (W) - 01 OC (G) - 01 |
| Hyderabad (Rural) | 02 | OC(W) - 01 | SC (W) - 01 |
| Warangal | 02 | OC(W) - 01 | SC (W) - 01 |

Open: Non-Local & Local

G: General W: Women

IX ZONAL/ LOCAL:

The selection list will be drawn into two parts. The first part will comprise 20% of the posts consisting of combined 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 only following the rule of reservation.

a) The candidates will be selected and allotted to Zones as per their Rank in the merit list and as per zonal preferences for allotment of non-local candidates against vacancies available. Selection shall be made on State Wide merit, in respect of non-local candidates and allotment of Zones shall be made as per the preference given by candidates against the actual vacancies.

b) While the Corporation calls for preference of candidates in respect of zones 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. Therefore, the APTRANSCO has the power to assign a successful candidate to any of the notified posts in the Zone in respect of non-local candidates, for which he/she is considered to be qualified and eligible, subject to fulfilling the selection criteria. 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.

RESERVATION TO LOCAL CANDIDATES:

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 (from class IV to X) or Residence Certificate in the proforma only for those candidates who have not studied in any Educational Institutions as the case may be . The relevant certificates may be got ready with authorized signature and kept with the candidates as and when required.

DEFINITION OF LOCAL CANDIDATE:

- (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 (i) 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 determine 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 of Local candidature is based on study, the candidate is required to produce a certificate from the Educational Institution(s) where he/she has studied during the said 4/7 year period .If, however, it is based on residence, a certificate should be obtained from an officer of the Revenue Department not below the rank of a Tahsildhar in independent charge of a Mandal
- (iv) If, however, a candidate has resided in more than one Mandal during the relevant 4/7 years period but with in the same District or Zone as the case may, be separate certificates from the Tahsildhars 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. Resident 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.
- C. Each of the following Zones comprises the Districts mentioned against each Zone

| Zones | Districts |
|-------------------|---|
| Visakhapatnam | Srikakulam, Vizianagaram, Visakapatnam, East Godavari & West Godavari |
| Vijayawada | Krishna, Guntur, Prakasham & Potti Sreeramulu Nellore |
| Kadapa | Chitoor, Kadapa, Anantapur & Kurnool. |
| Hyderabad (Metro) | Hyderabad & Rangareddy. |
| Hyderabad (Rural) | Mahboobnagar, Medak & Nalgonda |
| Warangal | Adilabad, Karimnagar, Warangal Khammam & Nizamabad. |

Presidential Order is not applicable to Corporate Head Office.

ANNEXURE

SYLLABUS

| Section | Particulars of the Section |
|----------------|---|
| A | Numerical ability (Indices, Ratios, Proportions, Profit and Loss, Mensuration, Algebra, Geometry and Statistics). |
| B | Language proficiency (Vocabulary, Sentence corrections, Reading comprehension) |
| C | Computer awareness |
| D | General Knowledge |