

भर्ती विभाग / Recruitment Department

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An ISO 9001, ISO 14001 & ISO 45001 Certified Company

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Ref: NCL/HQ/PD/Manpower/DR/2023-24/22

Date: 09/01/2024

**Employment Notification**

NCL invites online applications from Indian nationals possessing minimum qualification required for regular appointment to the posts as mentioned in Table A for regular deployment across Mines/ Establishments of NCL in Singrauli District of Madhya Pradesh and Sonbhadra District of Uttar Pradesh.

**(1) POSITIONS & ESSENTIAL QUALIFICATION:-**

The different Positions and Minimum Qualification required are provided in **Table A**.

**Table A:** Table showing Positions and required essential qualification:

S.N.	Position Name	Eligibility/Essential Qualification
<b>(Supervisory Positions – Tr.)</b>		
1	Assistant Foreman (E&T) (Trainee) Grade-C	a) Matriculate or equivalent examination passed from any recognized Board of examination; & b) Diploma or relevant and higher qualification (Minimum 3 year course) in Electronics Engineering from any institute recognized by the Government.
2	Assistant Foreman (Mechanical) (Trainee) Grade-C	a) Matriculate or equivalent examination passed from any recognized Board of examination; & b) Diploma or relevant and higher qualification (Minimum 3 years course) in Mechanical Engineering from any institute recognized by the Government
3	Assistant Foreman (Electrical) (Trainee) Grade-C	a) Matriculate or equivalent examination passed from any recognized Board of examination; & b) Diploma or relevant and higher qualification (Minimum 3 years course) in Electrical Engineering from any institute recognized by the Government.

**\*\*Government here means: State Governments of Indian Union / UTs Administration / Central Government of India**

**Note A:**

- Closing date for online registration and form submission is **05/02/2024**, and that is referred as **Crucial Date** in this Employment Notification. **Crucial Date** is the date for determining the eligibility of candidate in all respect as prescribed in 'Table A' above and for claiming Reservation/ Relaxation benefits.
- The prescribed essential qualifications for '**Supervisory Positions**' are the minimum hence candidates possessing higher and relevant qualification may also apply. Relevant and higher qualifications have been explained in '**Table D**'.
- Degree/Post Graduate/Diploma qualifications acquired through distance learning/ part-time or their equivalent shall not be considered.

**(2) POSITIONS AND VACANCIES:-**

The different Positions and Vacancies for different categories are provided in Table B.

**Table B:** Table showing total number of Vacancies and Vacancies reserved for different groups/ community.

S.N	Position Name	Cadre	Backlog Vacancies				Vacancies (Including backlogs)						PwBD	ESM
			SC	ST	OBC-NCL	Total	UR	EWS	SC	ST	OBC NCL	Total vacancies (Including backlogs)		
1	Assistant Foreman (E&T) (Trainee) Grade-C	E&T	0	0	0	0	6	0	1	1	1	9	0	0
2	Assistant Foreman (Mechanical) (Trainee) Grade-C	Excavation	0	1	1	2	25	5	8	12	9	59	2	5
3	Assistant Foreman (Electrical)(Trainee) Grade-C	Excavation	0	0	0	0	21	4	7	9	7	48	1	4
		Electrical & Mechanical (E&M)	0	0	0	0	15	3	5	6	5	34	1	3
<b>TOTAL</b>			<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>67</b>	<b>12</b>	<b>21</b>	<b>28</b>	<b>22</b>	<b>150</b>	<b>4</b>	<b>12</b>

**UR:** UNRESERVED, **SC:** SCHEDULED CASTE, **ST:** SCHEDULED TRIBE, **OBC (NCL):** OTHER BACKWARD CLASS (NON CREAMY LAYER), **EWS:** ECONOMICALLY WEAKER SECTIONS, **PwBD:** PERSONS WITH BENCHMARK DISABILITY, **ESM:** EX SERVICEMEN.

### (3) THE DETAILS OF POSITIONS EARMARKED FOR PwBD CATEGORIES ARE AS BELOW:-

**Table C:** Table showing no. of posts earmarked for PwBD categories: -

S.N.	Position Name	Suitable benchmark disability categories
1	Assistant Foreman (Mechanical)(Trainee) Grade-C	OA,OL
2	Assistant Foreman (Electrical)(Trainee) Grade-C	OA,OL,BL, HH

**OL:** ONE LEG, **OA:** ONE ARM, **HH:** HARD OF HEARING, **BL:** BOTH LEGS AFFECTED BUT NOT ARMS

**Note:** The above positions fall into the Identified List of Positions for PwBD candidates, as per the list of posts identified by Coal India Limited under Rights of Persons with Disabilities Act, 2016. The same is available on the official website of Coal India Limited.

### (4) CLARIFICATION ON THE RELEVANT AND HIGHER QUALIFICATION OF DIPLOMA FOR SUPERVISORY POSITIONS:

**Table D:** Table showing relevant and higher qualification of diploma for Supervisory Positions:-

S.No.	Post Name	Essential required Diploma in Engineering	Higher Qualification and Branches pertains to	Not Eligible Branches of Diploma / B.E./B.Tech.
1	Assistant Foreman (E&T) (Trainee) Grade-C	Diploma in Electronics Engineering  (Minimum 3 years course)	Engineering degree in Electronics / Electronics & Communication / Electronics & Telecommunication	Instrumentation, Instrumentation & Control, Electrical, Instrumentation & Control and Electronics Engineering Degree in combination with any of the above branch. Or Diploma in any other branch other than Electronics is not eligible.

2	<b>Assistant Foreman (Mechanical) (Trainee) Grade-C</b>	Diploma in Mechanical Engineering (Minimum 3 years course)	Engineering degree in Mechanical Engineering	Production, Industrial, Automation, Thermal, Manufacturing Engineering and combination of Mechanical engineering and any of these or similar branches.
3	<b>Assistant Foreman (Electrical) (Trainee) Grade-C</b>	Diploma in Electrical Engineering (Minimum 3 years course)	Engineering degree in Electrical Engineering / Electrical & Electronics Engineering	Instrumentation & Control, Power System, Power Electronics, Power Engineering and combination of Electrical Engineering with any of these or similar branches.

**(5) THE TRAINING PERIOD AND SCALE OF PAY FOR THE POSITIONS ARE GIVEN AT TABLE 'E':**

**Table E:** Table showing period of training and scale of pay for different positions.

S.No.	Entry level position	Entry level grade & pay scale (As per NCWA XI) during training	Cadre	Training period in Yr./Yrs.	Grade of candidates after successful Training
1	<b>Assistant Foreman (E&amp;T) (Trainee) Grade-C</b>	Minimum of (Monthly rated) Grade-C Basic Rs 47330.25 per month	E&T	One Year	Assistant Foreman (E&T) Grade-C
2	<b>Assistant Foreman (Mechanical) (Trainee) Grade-C</b>	Minimum of (Monthly rated) Grade-C Basic Rs 47330.25 per month	Excavation	Two Year	Assistant Foreman (Mechanical/Excavation) Grade-C
3	<b>Assistant Foreman (Electrical) (Trainee) Grade-C</b>	Minimum of (Monthly rated) Grade-C Basic Rs 47330.25 per month	Excavation	Two Year	Assistant Foreman (Electrical/Excavation) Grade-C
			E&M	Two Year	Assistant Foreman (Electrical/E&M) Grade-C

In addition to the basic pay mentioned above, other allowances such as DA, attendance bonus, special allowance, HRA, Transport subsidy, Medical Facility etc as per the provisions of NCWA XI are also admissible. After successful completion of training further career growth will be as per the prevailing respective cadre schemes & rules.

**(6) RESERVATION:**

- i. Reservation of SC / ST/ OBC (NCL) CENTRE LIST/ EWSs / PwBD/ ESM will be applicable as per Govt. of India rules and guidelines, notifications and amendments from time to time.
- ii. The total number of vacancies and the reserved vacancies are provisional and may vary according to the actual requirements. The reservation under various categories will be as per prevailing Government of India's guidelines at the time of finalization of results.
- iii. All those candidate(s) seeking reservation/ relaxation benefits available for EWS/ SC/ ST/ OBC (Non Creamy Layer) CENTRE LIST/ PwBD must ensure that they are entitled to such Reservation/ Relaxation as per eligibility prescribed in the Rules/ Guidelines. They should be in possession of all the requisite certificates in the prescribed format in support of their claim as stipulated in the Rules/ Guidelines. Prescribed formats are enclosed for ready reference along with this Employment Notification at the end, aspirants may find appropriate one as applicable/ suitable for claiming Reservation/ Relaxation benefits as per entitlement.
- iv. Candidate(s) who wish to be considered against reserved vacancies and seek other concessions applicable to the reserved categories must submit requisite certificate(s) on the prescribed proforma from the competent authority for availing such reservation.
- v. A person seeking appointments on the basis of reservation to OBC (NCL) CENTRE LIST must ensure that he/ she possesses the Caste/ Community certificate (Applicable for Centre

- List only) and does not fall in Creamy Layer on the Crucial Date.
- vi. Caste certificate in the prescribed proforma has to be produced by the candidates seeking reservation as SC/ ST/ OBC (NCL) CENTRE LIST from the Competent Authority (Indicating clearly candidate's caste, the Act/order under which the caste is recognized as SC/ ST/ OBC (NCL) CENTRE LIST and the village / town that candidate is ordinarily a resident of). A candidate will be eligible to get the benefit of community reservation only in case the particular caste to which the candidate belongs is included in the list of reserved communities issued by the Central Government.
  - vii. SC/ ST/ OBC (NCL) CENTRE LIST/ EWSs / PwBD candidates, who are selected on their own merit without relaxed standards, will not be adjusted against the reserved vacancies. Such candidate(s) will be accommodated against the un-reserved vacancies earmarked for UR category. The reserved vacancies will be filled up separately from amongst the eligible SC/ST/OBC (NCL) centre list and EWSs candidates.
  - viii. SC/ ST/ OBC (NCL) CENTRE LIST/ EWSs / PwBD candidates who qualify on the basis of relaxed standards viz age limit, minimum prescribed cut off marks etc., irrespective of his /her merit position, will be counted against reserved vacancies and not against UR vacancies.
  - ix. The nature of reservation for ESM & PwBD is Horizontal- A General category ESM/PwBD will be adjusted against UR, OBC category ESM/PwBD will be adjusted against vacancies reserved for OBC-NCL and ESM/PwBD candidates belonging to SC/ST caste category will be adjusted against vacancies reserved for SC & ST candidates.
  - x. EX- Servicemen who have already secured employment in Government Jobs in civil side in Group C & D posts on regular basis after availing of benefits of reservation given to EX-Servicemen for their re-employment are not eligible for reservation in ESM category and Fee Concession. However, he/she can avail of the benefit of reservation as Ex-servicemen for subsequent employment if he/she immediately after joining civil employment, given self-declaration/undertaking to the concerned employer about the date wise details of applications for various vacancies for which he/she had applied for before joining the initial civil employment as mentioned in the OM No 36034/1/2014- Estt. (Res) dated 14/08/2014, issued by DOP&T.
  - xi. Candidates belonging to Economically Weaker Sections (EWSs) will have to submit a copy of valid Income & Asset certificate issued by the competent authority as per OM No. 36039/1/2019-Estt (Res) dated 31.01.2019 of DoPT, Ministry of PPG&P, Govt. of India on the basis of gross annual income of Financial Year 2022-2023.
  - xii. Reservations for persons with benchmark disabilities will be given as provided in the PwBD Act 2016 (Amended from time to time).
  - xiii. Degree of benchmark disability for reservation and competent authority for issue of disability certificate: - Only such persons would be eligible for relaxation in conditions/ reservations in posts who suffer from not less than 40% of relevant benchmark disability. Those Persons with benchmark disabilities (PwBD) who have availed the relaxation and /or reservation and shortlisted for document verification have to submit the original certificate of disability issued by the competent authority as per the prescribed form under chapter 7 of Rights of Persons with Disabilities Rules, 2017. The existing certificates of disabilities issued under the PWD Act 1995 (Since repealed) shall continue to be valid for the period specified therein.
  - xiv. In case of Persons with benchmark disabilities (PwBD), the facility of Scribe shall be given / opted for if so desired by the person, if applicable as per the relevant provisions of Act / Rules / Guidelines of Govt. of India (Refer OM F No. 34-02/2015-DD-III dated 29.08.2018 issued by Under Secretary to the GoI, Ministry of Social Justice & Empowerment). Scribe certificate, as applicable, in the prescribed format of APPENDIX-I & APPENDIX-II as provided in this Employment Notification has to be produced by the candidate(s) at the time of reporting for CBT.

**(7) AGE LIMIT:**

(i) The candidate(s) must have attained the minimum age of 18 years as on the Crucial Date and the age should not exceed the upper age limit i.e. 30 years on the Crucial Date. However, relaxation in the upper age limit of 30 years for different categories of candidates would be as follows:

**Table F: Table showing permissible age relaxation to different categories**

S.N.	Category	Maximum Age Relaxation Permissible Beyond the Upper Age Limit (As on Crucial Date i.e. 05/02/2024)
1	UR/ EWS	No relaxation
2	SC/ ST	5 Years
3	OBC(NCL) Centre List	3 Years
4	PwBD (UR)	10 Years
5	PwBD (OBC - Non Creamy Layer - Centre List)	13 Years
6	PwBD SC/ ST	15 Years
7	Ex Servicemen (ESM)	Actual period of service rendered in defence services +3 years (Candidates belonging to the Scheduled Castes and the Scheduled Tribes and the Other Backward Classes who are also covered under the category of Ex-servicemen will be eligible for grant of cumulative age-relaxation under both the categories, subject to the condition that his/her actual age should not exceed beyond 50 years)
8	Departmental Candidates (All employees of CIL and its subsidiary companies)	No upper age Limit

(ii) Candidate(s) should note that the Date of Birth as recorded in the Matriculation/ Secondary Examination Certificate, all marks sheet of Matriculation /10<sup>th</sup> Standard or equivalent issued by Central/ State Board will be considered.

**(8) APPLICATION FEE:-**

Candidate(s) will have to make the payment of Application Fees through the Online Mode as under:

**Table G: Table showing details of Examination fee**

Unreserved (UR) /OBC- Non Creamy Layer / EWS	Rs. 1000.00/- plus applicable GST Rs. 180/- totaling Rs. 1180/- (Rupees One Thousand One Hundred Eighty Only)
SC/ ST/ ESM/ PwBD/ Departmental Candidates	Nil

**Note 1:** Applications without the prescribed fee will not be entertained and summarily rejected. No representation against such rejection would be entertained.

**Note 2 :** Fee once paid shall neither be refunded nor be adjusted under any circumstances.

**Note 3 :** Any tax or Bank charges other than the application fees will be borne by the candidate.

**Note 4 :** Application fee will be paid through online mode only. There will be no other mode for payment of application fee. NCL will not be responsible, in case a candidate deposits the fee in any wrong account.

**(9) ACTION AGAINST CANDIDATES FOUND GUILTY OF MISCONDUCT:**

I. At the time of Computer Based Test, if a candidate is found guilty of using unfair means or

impersonating or misbehaving in the examination hall or resorting to any other unfair means in connection with his/her candidature for the selection; or obtaining support of his/ her candidature by any means, such candidates will be liable to criminal prosecution and will be disqualified from the Computer Based Test. The Company may also debar such candidates from participating in any selection process in the Company in future.

- II. If it is detected that any candidate has furnished any false information / particulars with regard to his/her qualification, Category/Caste and experience in the Application Form or in any document and/ or misrepresented/ suppressed any material fact in the application form, for securing appointment, his/ her service will be terminated forth with during probation period or even after confirmation of the service.
- III. Canvassing in any form will be treated as dis-qualification.

**(10) SELECTION PROCESS:**

- I. Eligible candidates meeting the minimum eligibility criteria as on the Crucial Date, as specified under this Notification, will be required to appear for a Computer Based Test. The selection will be based on a candidate’s relative score in the Computer Based Test.
- II. Candidates will be allowed to appear in the Computer Based Test merely on the basis of their declaration regarding their eligibility as mentioned in the online application form. Scrutiny/ Verification of the claims of the candidate(s) of their eligibility for a post applied will be done post declaration of results of the Computer Based Test. Such scrutiny/ verification will be done only for those candidates who shall pass the Computer Based Test as per the laid down cut-off marks (Minimum Qualifying Marks).
- III. Computer Based Test will be conducted separately for each post. The Computer Based Test will be of 100 Marks for 90 minutes duration (in one sitting), comprising two sections (Section-A & Section-B); Section ‘A’ will consist of technical knowledge (discipline related) with 70 multiple choice questions (MCQs) and Section ‘B’ will consist of General Knowledge, General Awareness, Reasoning, Verbal & Mental Ability and Quantitative Aptitude with 30 marks multiple choice questions (MCQs). Each question will carry 01 mark and there is no penalty for wrong answer. No marks will be awarded for un-attempted questions. The question paper shall be bilingual i.e. in English and Hindi only. However, in case of any error/ambiguity in Hindi version, the English version of the question shall be valid and final.
- IV. Indicative syllabus for the Computer Based Test is attached as **Annexure-A**.
- V. **TEST CITIES:** The Computer Based Test will be held at Test Cities as mentioned in the online application form. Candidates may opt for the Test Cities from the list as per their preference and the same cannot be changed after the online application form is submitted. NCL reserves the right to allocate any Test City or change the Test City opted by the candidate. NCL reserves the right to add or delete any Cities(s) from the list based on the number of applicants.
- VI. Selection of candidates in the merit panel will be subjected to securing of cut-off marks (*Minimum Qualifying Marks*) in the Computer Based Test for the concerned position with respect to their category as mentioned in ‘**Table H**’ and fulfilling prescribed eligibility criteria:

**Table H: Table showing Minimum Qualifying Marks (cut-off marks) to qualify in merit list.**

Positions	Maximum	Category of Candidates	Minimum Cut-Off Marks required for Selection out of Maximum Marks
<i>All notified positions</i>	100	UR , EWS	50 marks
		SC/ ST/ ESM/ OBC-NCL/ PwBD	40 marks

- VII. In cases where more than one candidate secures equal marks in the Computer Based Test conducted for the any of the three positions, ***tie will be resolved*** by applying the following methods one after another: (i) The candidate with higher score in Section-A will be preferred; Then (ii) Date of Birth, with older candidates, will be preferred and then (iii) Alphabetical order

in which names of the candidates appears.

- VIII. Result of the Computer Based Test will be published on NCL website as early as possible after successful completion of the Computer Based Test.
- IX. Such candidates who would score equal or above the Minimum Qualifying Marks (Cut-Off as provided in Table H) would only be notified for appearing for scrutiny/ verification of their testimonials supporting their claim of candidature, in the order of their marks scored in the Computer Based Test for three different positions separately up to the extent the positions remain un-filled . The candidates shall have to appear along with all original certificates/ documents as per eligibility criteria notified in this Employment Notification for scrutiny/ verification. The date, time and venue for scrutiny/ verification would be notified on NCL website and the candidates shall have to report accordingly. In the event of failure to report with all original certificates and testimonials within the stipulated time, the candidature of such candidate shall stand cancelled automatically without further notice.
- X. Provisional merit panels of candidates who secure the requisite cut-off marks stipulated above and fulfilling the eligibility criteria will be published, in the order of marks scored, after resolving tie as prescribed, on NCL website in respect of different Positions.
- XI. The vacancies for the positions of '**Assistant Foreman (Electrical) (Trainee) Grade-C**' as mentioned in '**Table A**' belong to two different cadres' i.e; Excavation Cadre (Excv.) and Electrical & Mechanical (E&M) Cadre as mentioned under '**Table B**'. All candidates applying for a position of '**Assistant Foreman (Electrical) (Trainee) Grade-C**' will be deemed as have applied for both Excavation Cadre and Electrical & Mechanical (E&M) Cadre, as the required qualification are the same for appointment to both the cadre.  
On joining, as per the letter of provisional appointment, posting of candidates in Excavation cadre will be done first (following reserved positions in different categories i.e. UR, SC, ST, OBC-NCL, EWSs in the order of merit position of the candidates reported in a day. On filling of vacancies in Excavation cadre, vacancies of E&M cadre will be filled in each category following reserved positions in different categories i.e. UR, SC, ST, OBC-NCL, and EWSs with the remaining candidates.
- XII. Provisional appointment letters will be issued to the successful candidates as per their relative merit position, their eligibility for the post and with due consideration of the reservation for reserved category candidates.
- XIII. If it is found during the Scrutiny/ Verification, or during the course of Probation, or even during the course of employment, that the candidate is not fulfilling the eligibility criteria in any respect, his/her candidature/ appointment shall be cancelled.

**(11) GENERAL INSTRUCTIONS FOR CANDIDATES:**

- i. A candidate can apply for any one of the three positions notified in the Employment Notification as provided in '**Table A**'. If a candidate applies for multiple positions his/her candidature for recruitment against this notification will be cancelled.
- ii. All qualifications should be recognized by AICTE/ UGC/ appropriate Indian Statutory Authorities.
- iii. Before submitting the application, a candidate must ensure that he/ she fulfills all the eligibility criteria and other norms mentioned in the Employment Notification. He/ She may cross check the information such as Date of Birth, Category, Contact Details, and Qualifications etc. furnished in the application form before finally submitting the same online as no correction would be possible later and no correspondence will be considered in this regard.
- iv. Decision of NCL management regarding eligibility criteria, acceptance or rejection of applications, mode of selection to the notified positions etc. shall be final and binding on all candidates. Mere fulfilling of minimum qualification and job requirements will not vest any right on candidates for being called for Computer Based Test / document verification. No

- correspondence will be entertained for candidature declared ineligible.
- v. Mere issuance of Admit Card/ Call Letter to a candidate will not imply that his/ her candidature has been finally cleared by NCL. The candidature shall remain provisional till such time NCL verifies the eligibility conditions with reference to original documents after the candidate qualifies in the Computer Based Test.
  - vi. Candidates should ensure their eligibility at the time of applying online. In case it is found at any stage of the selection process or even after the appointment that a candidate has submitted false or incorrect information or suppressed any relevant information/ material facts or does not fulfill the eligibility criteria, his/her candidature/ service is liable for rejection/ termination without notice.
  - vii. No relaxation in the minimum educational qualification, as prescribed in 'Table A', is admissible for any category of candidate.
  - viii. Age and all other eligibility criteria shall be reckoned as on the Crucial Date as prescribed under this Employment Notification.
  - ix. Candidates should carefully fill up their category (General/ SC/ ST/ OBC/ Ex-Servicemen/ EWSs/ PwBD etc.) in the Online Application form. No change of category shall be allowed at later stage of selection process and the candidature of such applicants shall be rejected.
  - x. Ex-servicemen must produce discharge certificate issued by Army/Navy/Air Force of Indian Union at the time of document verification.
  - xi. All documents (Caste Certificate, Educational Qualification, EWS certificate, PwBD certificate etc.) as per applicability and as provided by the candidate will be verified from the office of the Issuing Authority and candidature will be cancelled if the certificates are not found satisfactory/ genuine at any subsequent stage of Computer Based Test.
  - xii. The candidates must have an active E-mail Id & Mobile number which must remain valid for at least next one year. All correspondences with the candidates shall be done either through *registered e-mail id & mobile number (as may be necessary)* and all general information shall be provided through NCL website. ***However, admit card will be provided only through NCL website and the candidates will have to download the admit card.*** The responsibilities of receiving, downloading and printing of application form, admit card and other information shall be of candidates. NCL will not be responsible for any loss of document due to invalid/ wrong/ incomplete contact details provided by the candidate or for delay/ non-receipt of information. In case of any problems faced by the candidates in filling up the online application form they may refer the "Help Desk Option" available in the individual login portal. For queries other than the online application form, candidates may write only to Email Id: [rectt.ncl@coalindia.in](mailto:rectt.ncl@coalindia.in).
  - xiii. Candidates are advised to apply much before the closing date for submission of Online Application mentioned in this Employment Notification to avoid last minute network congestion.
  - xiv. NCL will not take any responsibility for the candidates not being able to submit their applications Online within the prescribed closing dates on account of any reasons beyond the control of NCL.
  - xv. Response query management will be made operational on the NCL website after 02 days from the completion of Computer Based Test for inviting comments/objections from candidates, if any. The link for objection management will be hosted for 04 days only. Objections through any other mode will not be entertained.
  - xvi. NCL reserves the right to shortlist candidates for Computer Based Test, reschedule the test date & venue etc. or alter any of the advertised condition depending upon the circumstances.
  - xvii. NCL will not bear any liability on account of service bond/ salary/ leave salary/ pension contribution, etc, if any, of previous employment of any candidate already working in Central Govt./ State Govt./ Autonomous Body/ Public Sector Undertaking.



- xviii. Candidates employed in Govt./ Semi Govt./ Public Sector Undertaking (including departmental candidates i.e. employees of CIL and its subsidiaries) / Autonomous Bodies are required to produce 'No Objection Certificate' at the time of Scrutiny /Verification of original documents if shortlisted. Such candidates on final selection shall have to resign from their present job before joining NCL.
- xix. In case of requirement, the Computer Based Test may be conducted in multiple shifts. In such case, the following appropriate Score Normalization Formula for normalization of Computer Based Test scores will be adopted.

**Table G:** Table showing formula for normalization of Computer Based Test Scores

<b>Normalized score for each candidate (X<sub>n</sub>) = X<sub>n</sub> = (S<sub>2</sub>/S<sub>1</sub>)*(X- X<sub>av</sub>) + Y<sub>av</sub></b>	
<b>S<sub>2</sub></b>	Is the SD of the shift with the Highest Average Score taken as Base for normalization (Criteria for choosing the base for normalization is generally taken as the shift with 'Highest Average' of raw scores)
<b>S<sub>1</sub></b>	Standard Deviation for the corresponding shift (to be scaled to S <sub>2</sub> )
<b>X</b>	Raw score of a candidate
<b>X<sub>av</sub></b>	Simple average of the shift
<b>Y<sub>av</sub></b>	Average corresponding to shift with highest Average (taken as Base for normalization)

- xx. Selected candidates could be posted in any of the Mines/Establishments of NCL and are liable to be transferred to other subsidiaries of Coal India Limited any time during their service as may be required.
- xxi. Appointment of selected candidates will be subjected to being found medically fit in the Company's Medical Examination as per the laid down Rules related to Medical Examination of CIL.
- xxii. Selection of candidate shall be provisional and subject to verification of documents relating to eligibility criteria, character, antecedents and other documents submitted by candidates and is also subject to his/ her meeting other requirements applicable for appointment under the rules of NCL.
- xxiii. Appointment of the candidate in NCL will be subject to verification of character and antecedents by the prescribed authorities and if any discrepancy/fact is suppressed, the candidature of the candidate will be cancelled and the decision of NCL in this regard will be final and binding.
- xxiv. The date of Computer Based Test and other details will be subsequently informed through website. Candidates will have to appear at the Centre/ Venue allotted to them by NCL for the Computer Based Test. No change in Centre/ Venue is permissible and no application shall be entertained in this regard.
- xxv. SC/ ST candidates called for Computer Based Test will be paid up to II<sup>nd</sup> Class Non-AC fare as per rules. However, they have to submit their claims in duly filled TA Claim format provided with this Employment Notification (at the end) along with all desired enclosures like caste certificate, photocopy of onward (mandatory) and return journey (optional) of railway ticket / bus receipt ticket to the Invigilator, after attempting Computer Based Test only. Subsequent claims as well as claims with incomplete information will not be entertained. The distance of Examination Centre will be calculated from the permanent address of the candidate or from place of actual journey whichever is shorter. In case, candidate has submitted only onward journey ticket and not submitted the return journey tickets, then the claim will be considered up to the double of onward journey fare and that will be paid as per rule.
- xxvi. No TA/ DA will be paid for appearing in the Computer Based Test, scrutiny/ verification of certificates and documents or for joining on being selected except otherwise as provided in this advertisement.
- xxvii. Candidate will appear for the Computer Based Test at the Examination Center at his/her own

- xxviii. risk and Northern Coalfields Limited will not be responsible for any injury or losses etc. NCL management reserves the right to modify/ alter/ restrict/ enlarge/ cancel the recruitment process, and revise the number of vacancies, at its discretion without assigning any reasons whatsoever. The decision of the NCL management will be final and no appeal will be entertained in this regard.
- xxix. All future communication/ information regarding this recruitment will be made available on NCL website. Candidates are advised to check/ visit NCL website ([www.nclcil.in](http://www.nclcil.in)) regularly for further updates.
- xxx. Court of Jurisdiction for any dispute will be Honorable High Court of Jabalpur M.P.
- xxxi. In case of any ambiguity/ confusion, English Version of Employment Notification will be considered valid.

## (12) HOW TO APPLY:

- i. Candidates are advised to login into the official website of NCL by using URL [www.nclcil.in](http://www.nclcil.in).>Career>Recruitment >Employment Notification for Direct Recruitment of various posts of Supervisory Staff i.e. Assistant Foreman (Mechanical/ E&T/ Electrical)> Apply online.
- ii. Employment Notification is available in both English and Hindi. Candidates may select either of them at their convenience.
- iii. Candidates are advised to go through the provisions of the complete Employment Notification carefully for assessing his/her eligibility.
- iv. Candidates belonging to categories other than SC/ST/Ex-Servicemen/Departmental Candidate are required to pay a non-refundable application fee of Rs. 1000.00/- plus applicable GST Rs. 180/- totaling Rs. 1180/- (Rupees One Thousand One Hundred Eighty Only) only through the online facility.
- v. While applying online, candidate needs to upload the following documents:-
  - Scanned copy of the recent passport size colour photograph (not older than 3 weeks in jpg/jpeg format).
  - Scanned copy of signature with Black ink pen (in jpg/jpeg format).
  - Scanned copies of the documents (in pdf, jpg, jpeg format), as follows:
    - a) Matriculation / Secondary Board level certificate.
    - b) **For the post of Assistant Foreman Electrical (Trainee) Gr.C**  
Scanned copy of Diploma or relevant and higher qualification in Electrical Engineering from an institute recognized by the Government.  
**For the post of Assistant Foreman Mechanical (Trainee) Gr.C**  
Scanned copy of Diploma or relevant and higher qualification in Mechanical Engineering from an institute recognized by the Government.  
**For the post of Assistant Foreman E&T (Trainee) Gr.C**  
Scanned copy of Diploma or relevant and higher qualification in Electronics Engineering from an institute recognized by the Government.
    - c) Candidates belonging to OBC (Non-Creamy Layer) / SC / ST/ PwBD will have to upload self-attested copy of valid certificate in prescribed format.
    - d) Candidates belonging to Economically Weaker Sections (EWS) will have to upload self-attested copy of valid Income & Asset certificate issued by the competent authority as per OM No. 36039/1/2019-Estt (Res) dated 31.01.19 of DoPT, Ministry of PPG&P, Govt. of India on the basis of gross annual income of Financial Year 2022-2023.
- vi. If more than one application is received from a candidate, most recent (current) application will be considered as final.
- vii. Non-attachment of required/legible documents in the Online Application Form will be treated as incomplete application and will be rejected forthright. After filling all the required fields, the

candidate has to ensure that the data furnished by him/ her is correct and then only he/she can submit the form since once the form is submitted no change is allowed in the later stage. Candidates are advised to keep the print out of the online application filled with them for future references.

**(13) SPECIAL NOTE:**

- I. A candidate neither need to Post/ Dispatch Hard copies of online application nor copies of relevant testimonials. A Candidate will be allowed to appear in the Computer Based Test on the sole basis of his/ her declaration in the online application that he/ she has gone through the concerned Employment Notification and fully understood all provisions, terms and conditions and is fulfilling all the eligibility criteria at the time of applying online.
- II. Mere issuance of admit card shall not be taken as confirmation of eligibility of a candidate by Northern Coalfields Limited. Similarly, securing the minimum qualifying marks in Computer Based Test does not confer any right on the candidate for claiming appointment. The merit for appointment shall be drawn on the basis of fulfilling all the eligibility criterion to be determined in the ‘Documents Scrutiny Process’ post Publication of result of the Computer Based Test in terms of this Employment Notification, in respect of those candidates who score minimum qualifying marks (cut-off).

**(14) IMPORTANT DATES:**

Start date of Online registration and form submission	15/01/2024 (10:00 AM)
Closing date for online registration and form submission (that is <b>Crucial Date</b> – The date for determining the eligibility of candidate in all respect as prescribed in Table A in this Employment Notification for different posts.)	05/02/2024 (11:59 PM)
Tentative date of downloading the admit card for eligible candidates	Will be intimated through official website
Tentative Date of Computer Based Test	Will be intimated through official website
Tentative date of declaration of result	Will be intimated through official website

**(15) NCL’s DECISION FINAL:**

The decision of NCL Management in all matters relating to eligibility, acceptance or rejection of applications, penalty for false information, mode of selection, conduct of examination(s), allotment of examination centers, selection and posting of selected candidates will be final and binding on the candidates and no enquiry/correspondence will be entertained in this regard.

**Dy. General Manager/HOD (P/MP & Rectt)**

### **Disclaimer**

*Beware of touts and Job racketeers trying to deceive by false promises of securing Job in Northern Coalfields Limited (NCL) either through influence or by use of unfair and unethical means. NCL has not appointed any agent(s) or coaching advertisement for action on its behalf. Candidates are warned against any such claims being made by persons /Agencies. Candidates are selected purely as per Merit. Beware of unscrupulous elements and do not fall in their trap. Candidates attempting to influence NCL directly or indirectly shall be disqualified and legal action can be initiated against them.*

## **अनुलग्नक - 'ए' /ANNEXURE -'A'**

### **Section A (1-70 questions, MCQ of one mark each) -70 Marks**

### **खण्ड ए (1-70 प्रश्न, 70 वस्तुनिष्ठ प्रश्न प्रत्येक 1 अंक का) - 70 अंक**

Questions related to technical knowledge of discipline as per current curriculum of Indian Universities/Institutes (Indicative syllabus has been given below) / भारतीय विश्वविद्यालयों/संस्थानों के वर्तमान पाठ्यक्रम के अनुसार तकनीकी ज्ञान से संबंधित प्रश्न) सांकेतिक पाठ्यक्रम नीचे दिया गया है।

Detailed indicative syllabus for Section A (Technical section specific to different post) has been given in subsequent pages.

## **Name of the Post: Assistant Foreman (E&T) T&S Gr - C**

### **1. Networks Theory**

Basic of Network Theory. Nodal and Mesh analysis. Network Theorems- Superposition Theorem, Thevenin and Norton's Theorem, maximum power transfer Theorem. Star-Delta transformation, Duality. Steady state sinusoidal analysis, Time domain analysis of simple linear circuits, Frequency domain analysis of RLC (Series and Parallel) circuits. Two port network parameters. Graph Theory.

### **2. Digital Electronics**

Number systems, Code converters: BCD, Binary, IIEX, Octal other codes, Combinatorial Circuits. Boolean algebra. Karnaugh map. CMOS implementations. Arithmetic Circuits. Multiplexers. Encoder & Decoders. Sequential circuits- latches and all flip-flops, counters, shift-registers. Data converters- ADC (Analog to Digital Converter) and DAC (Digital to Analog Converter).

### **3. Semiconductor memories- ROM (Read Only Memory), SRAM (Static Read Access Memory), DRAM (Dynamic read Access Memory)**

### **4. Microprocessor (8085-8 Bit)- Architecture, All Instruction, Programming, memory.**

### **5. Signal and System**

Signal Operation- Time Shifting, Scaling, & Reversal. System- Linear, causality, stability. Fourier series and Fourier transform representations, sampling theorem. Discrete-Time signals discrete-time Fourier transform, DFT (Discrete Fourier transform), FFT, and Z- transform. LTI systems- Properties, frequency response, group delay, phase delay.

### **6. Electronic Devices Circuits (EDC)**

Energy bands in intrinsic and extrinsic silicon. Carrier transport- diffusion current, Drift current, Mobility and Resistivity, Diffusion constant, Generation and recombination of carriers. Diode, BJT (Bipolar Junction Transistor). P-N junction Transistor, Zener diode, MOSFET, LED (Light Emitting Diode), a photodiode and solar cell. Thyristor (SCR), Triac Diode, GTO, an IGBT, DC to DC conversion, Rectifier, Chopper.

### **7. Analog Electronics**

BJT (Bipolar Junction Transistor), and MOSFETs, Simple diode circuits- clipping, clamping, and rectifiers. BJT and MOSFET amplifiers- multi-stage, differential, feedback, power and operational, Operational Amplifier circuits, Active filters. Oscillators- criterion for oscillation, RC Phase Shift, using transistor and FET, Wein bridge, Clapp's, Colpitts oscillator only Formula. Function generators, wave-shaping circuits and 555 timers, Voltage reference circuits, Power supplies- ripple removal and regulation. Cathode Ray Oscilloscopes (CRT), Multimeters, and Digital voltmeters.

### **8. Control Systems**

Basic control system, Transfer function meson's formula, Block diagram representation, Signal flow graph. Transient and steady-state analysis of LTI systems- First and Second Order System. Frequency response- Routh-Hurwitz criterion, Polar Plot analysis, and Nyquist.

## **9. Analog Communication System**

Amplitude modulation and demodulation For Sinusoidal, Rectangular and Triangular Signal, Angle modulation(Frequency and Phase Modulation) and demodulation, AM and FM Spectrum Analysis, super heterodyne receivers.

## **10. Digital communications**

PCM (Pulse Code Modulation), DPCM (Delta Pulse Code Modulation), digital modulation schemes. Bandwidth Calculation, SNR (Signal to Noise ratio) and BER/Probability error for digital modulation, Fundamentals of error correction, Hamming codes, Inter-symbol interference. Basics of TDMA. FDMA, and CDMA (Code-division Multiple access). Information theory- Entropy, mutual information and channel capacity theorem.

## **11. Electromagnetics**

Electrostatics, Maxwell's equations, wave equation, Poynting theorem & vector. Plane waves- Reflection and refraction, polarization, phase and, group velocity, calculation of skin depth. Transmission lines- Equations, characteristic impedance, impedance matching. impedance transformation, S-parameters, Smith chart. Waveguides- Basic of Waveguides

## **12. Antennas-** Basic Concept, Definition, Types of Antenna, radiation pattern, gain, and directivity return loss etc.

## **13. Computer Networking**

Network features-Network topologies, protocols- TCP/IP, UDP, FTP, models, types, network components, network medias, Specification and standards, types of cables, UTP, STP, Coaxial cables. Network components like hub, Ethernet switch, router, NIC Cards, connectors, media and firewall. Difference between PC & Server.

## **14. Voice Communication**

Telephone instruments and signals: Introduction, the subscriber loop, standard telephone set, basic call procedure, cordless telephones, electronic telephones. Telephone circuit: Introduction, the local subscriber loop, channel noise and units of power measurements. transmission parameters, voice frequency circuit arrangements. Public telephone network: Transmission system, public telephone network, automated central office switches and exchanges, telephone switching hierarchy, common channel signaling system. Multiplexing of telephone channels: TDM, digital hierarchy, digital carrier line encoding, T-carrier systems, digital carrier frame synchronization, FDM, WDM. Digital telephony: Introduction, voice digitization, TDM of PCM signals, digital carrier, Fractional T-Carrier Service, Data Terminal, Digital Carrier Line Encoding, Error Detection, T Carrier System, T-1 Carrier System.

## **Name of the Post: Assistant Foreman (Mechanical) T&S Gr - C**

1. Theory of Machines and Machine Design Concept of simple machine, Four bar linkage and link motion, Flywheels and fluctuation of energy, Power transmission by belts V-belts and Flat belts, Clutches - Plate and Conical clutch, Gears - Type of gears, gear profile and gear ratio calculation, Governors - Principles and classification, Riveted joint, Cams, Bearings, Friction in collars and pivots.
2. Engineering Mechanics and Strength of Materials: Equilibrium of Forces, Law of motion, Friction, Concepts of stress and strain, Elastic limit and elastic constants, Bending moments and shear force diagram, Stress in composite bars, Torsion of circular shafts, Buckling of columns - Euler's and Rankin's theories, Thin walled pressure vessels.
3. Thermal Engineering Properties of Pure Substances: p-v & P-T diagrams of pure substance like H<sub>2</sub>O, Introduction of steam table with respect to steam generation process; definition of saturation, wet & superheated status. Definition of dryness fraction of steam, degree of superheat of steam. H-s chart of steam (Mollier's Chart).  
1st Law of Thermodynamics: Definition of stored energy & internal energy, 1st Law of Thermodynamics of cyclic process, Non Flow Energy Equation, Flow Energy & Definition of Enthalpy, Conditions for Steady State Steady Flow; Steady State Steady Flow Energy Equation.  
2nd Law of Thermodynamics: Definition of Sink, Source Reservoir of Heat, Heat Engine, Heat Pump & Refrigerator; Thermal Efficiency of Heat Engines & co-efficient of performance of Refrigerators, Kelvin Planck & Clausius Statements of 2nd Law of Thermodynamics, Absolute or Thermodynamic Scale of temperature, Clausius Integral, Entropy, Entropy change calculation of ideal gas processes. Carnot Cycle & Carnot Efficiency, PMM-2; definition & its impossibility.
4. Air standard Cycles for IC engines: Otto cycle; plot on P-V, T-S Planes; Thermal Efficiency. Diesel Cycle; Plot on P-V, T-S planes; Thermal efficiency.  
IC Engine Performance, IC Engine Combustion, IC Engine Cooling & Lubrication.  
Rankine cycle of steam: Simple Rankine cycle plot on P-V, T-S, h-s planes, Rankine cycle efficiency with & without pump work.
5. Boilers; Classification; Specification; Fittings & Accessories : Fire Tube & Water Tube Boilers. Air Compressors & their cycles; Refrigeration cycles; Principle of a Refrigeraton Plant; Nozzles & Steam Turbines.
6. Fluid Mechanics & Machinery Properties & Classification of Fluid: ideal & real fluids, Newton's law of viscosity, Newtonian and Non-Newtonian fluids, compressible and incompressible fluids. Fluid Statics Pressure at a point. Measurement of Fluid Pressure: Manometers, U-tube, Inclined tube. Fluid Kinematics: Stream line, laminar & turbulent



flow, external & internal flow, continuity equation. Dynamics of ideal fluids: Bernoulli's equation, Total head; Velocity head; Pressure head; Application of Bernoulli's equation. Measurement of Flow rate Basic Principles: Venturimeter, Pilot tube, Orifice meter. Hydraulic Turbines Classifications, Principles. Centrifugal Pumps Classifications, Principles, Performance.

7. Foundry & Casting methods, defects, different casting processes, Forging, Extrusion, etc, Metal cutting principles, cutting tools, Basic Principles of machining with (i) Lathe (ii) Milling (iii) Drilling (iv) Shaping (v) Grinding, Machines, tools & manufacturing processes, etc. as per the courses offered by the Recognized Institutes.

## **Name of the Post: Assistant Foreman (Electrical) T&S Gr - C**

### **Electricity Theory (Elementary Knowledge)**

**Principles of Electricity** - Electric voltage, Current and resistance, Ohm's law - specific resistance, Laws of resistance and their application for calculating voltage drop, series and parallel circuits, Practical units of voltage, current, resistance, power and energy. Relation between electrical power unit (KW) and Mechanical Power Units (HP).

**Electro Magnetism** - Concept of Electro Magnetic Force (EMF), production of E.M.F., Flemings Right and Left Hand Rules, Magnetic, Chemical and heating effects of electric current. Magnetic properties of material, Electromagnets and their various applications.

**Materials** - Conductors, Semiconductors and insulator materials and their relative merits. Transformer oil, Effect of heat and moisture on insulation. Lubricants and their uses.

Different types of wires, cables, switches, circuit breakers, cutouts, etc.

**Generation of Electricity** - Sources of natural energy. Renewable and Non-Renewable source methods of production of electricity both Alternating Current and Direct Current.

**A.C. Generators (Alternators)** - Essential components and constructional feature. Methods of voltage and frequency control conditions and methods for synchronizing, simple associated switchboard and its accessories.

**D.C. Generators** - Essential components and constructional features, Shunt, series and compound dynamos and their characteristics, causes for sparking. Commutators and their maintenance. Carbon brushes, their adjustment and care. Methods of voltage regulation. Conditions for parallel operation, simple associated switch board and its accessories.

**Batteries** - Primary cells, Dry cells, Lead acid cells, Nickel, Iron or Alkaline cells. Initial and subsequent charging of batteries. Charging circuits and their calculations. Series and parallel circuits. Maintenance of batteries. Use of Hydrometers.

**A.C. Motors** - Theory of induction (squirrel cage and slip-ring type) synchronous and commutator motors, their uses, installation, method of starting, speed control and reversal of direction.

**D.C. Motors** - Theory of series, shunt and compound wound type motors, their uses, installation, method of starting, speed control and reversal of direction.

**A.C. Circuits** - Knowledge of vectors. Phase and phase difference. Resistance, inductance and capacitance in an A.C Circuit. Periodicity or Frequency. Power and power factor. Single

phase and three phase systems, star and delta connections, Phase Sequence.

**Controlling and Regulating Gear** - Knowledge of various types of switches, circuit breakers, cutouts, starters, regulators and protective devices for both A.C. and D.C. motors and their wiring with the motors.

**Transformation** - Knowledge of single phase and three phase transformers, their construction, use and maintenance. Phasing out, parallel working, auto transformer, transformer tappings, temperature rise, instrument transformer.

### **Transmission and Distribution-**

**Overhead Lines** - Simple calculations and general principles of construction of low, medium and high voltage lines. Size of conductors, length of spans, sag, strength of poles, spacing of conductor, cross arms, effect of temperature. wind pressure, ice and snow, tension on wire. Insulators, brackets, stays, struts, guard wires and other protective devices. Earthing, lighting arrestors, lighting conductors and their testing and fault location.

**Underground Cables** - underground cables, simple calculations and general principles of laying cables direct in ground, in troughs and pipes. Handling, bending, jointing, plumbing. Underground and above ground junction boxes. Distribution board, Joint box compound, melting of compound and filling boxes with compound. Testing and fault location.

**Illumination** - Metal filament lamps, fluorescent lamp circuits, Photometric units and simple measurements. General requirements of efficient lighting and elementary calculations. Street lighting. Time switches.

### **Generation:-**

- a) DC and AC power supply for auxiliaries, arrangement of unit auxiliary and station service boards, station lighting and automatic changeover. Station batteries and charging methods. Stand by and emergency power and lighting systems.
- b) Testing & Measurement - Working principle and basis of instrument and measurements. Details of measuring instruments for pressure, flow, temperature, level, alignment and current, voltage, power, reactive power, frequency, energy, winding temperature, auto controllers, recorder, insulation, tester, its use for primary detection of faults, data acquisition system, digital distributed control, UPS etc. Testing of electrical and mechanical equipments.
- c) Control & Protection - Sequential operation & interlocks, general machine start/stop, sequence of operation.

### **Electricity Utilization for –**

Domestic installation –

**WIRING** - Wiring layout of different types for lighting and power installations in residential premises together with the necessary switchgear, estimate of materials and cost of different types of installations. Wiring of temporary installations and portable appliances.

**CIRCUIT DIAGRAM** - Electrical connections of various circuits for (i) House wiring including those for main and sub-distribution boards, switches and cutouts etc.

**APPARATUS** - Installations and maintenance of heaters, cookers, refrigerators and other domestic appliances. Electric bells and indicators. Small motors for pumps and electric lifts.

**ENERGY MEASUREMENT AND CHARGES** - Energy meters both D.C. and A.C. for house service.

**SIMPLE CALCULATION** - Simple calculations relating to cost of energy, elementary knowledge of methods of charging for energy.

**TESTING AND FAULT ATTENDANCE** - Detection and location of faults in domestic appliances and wiring installations. Insulation and continuity test. Rectification of faults. Tests for insulation resistance to earth. Earth testing.

**PROTECTIVE DEVICES** - Elementary knowledge of the use of fuses and cutouts, earthing of domestic appliances, motors etc. use of lighting arrestors.

### **Industrial installation-**

**WIRING** - Wiring layouts of different types for lighting and power installations in industrial premises together. with the necessary switchgear. Estimates of materials and cost of different type of installations. Wiring of temporary installations and portable appliances.

**CIRCUIT DIAGRAMS** - Electrical connections for D.C. & A.C. Motors, their starters regulators. Main and sub- distributing boards with circuit breakers, switches, fuse units with load statement for each circuit, D.C. & A.C. Motors, their starters regulators, Battery charging equipments, Converting machinery, Lifts with their safety devices.

**PUMP INSTALLATIONS** - General principles and elementary calculations of head, power and energy requirements.

**APPARATUS** - Installation and maintenance of generators, electric motors electric welding machines, haulage and winding machines, cooling and heating appliances.

**POWER AND ENERGY MEASUREMENT AND CHARGES** Measurement of power, Watt

meters, energy meters both D.C. & A.C. power factor correction by capacitors.

**SIMPLE CALCULATION** - Simple calculations relating to cost of power and energy, elementary knowledge of methods of charging for demand and energy.

**TESTING AND FAULT ATTENDANCE** - Detection and location of faults in D.C. & A.C. generators, motors, overhead distribution lines and underground cables, electric instruments and apparatus and wiring installations. Rectification of faults, Insulations and continuity tests. Tests for insulations resistance to each earth testing.

**PROTECTIVE DEVICES** - Elementary knowledge of earthing of generators, motors, machines, installations and appliances. Use of lightning arrestors, fuses including high rupturing capacity fuses, cutouts, circuit breakers, over load and no volt protections, thermal trips, fuses, circuit breakers and over speed protection.

### **Overhead Lines**

- Survey, Design, Construction Standards, Foundation Erection, Stringing and Construction equipments.
- Testing, fault locations, commissioning, maintenance and protections including safety devices and testing equipments.
- Selection of supports, cross arms, brackets, stays struts insulators and associated hardwares.
- Types and size of conductors, length of spans, sag, spacing of conductors, effect of temperature, wind pressure, ice and snow on tension of conductors, lighting on conductor.
- Earthings, lightning arresters, guard wires, relays and other proactive devices.

### **Cables**

- Classification of cables, criteria for the selection of power cables, PVC & XLPE underground cables. Classification of tests for cables laying, safe handling of cable drums, cable joints, cable terminations, crimp connections, maintenance of electric cable, flexible cable, flexible cables for portable machines, faults in underground cables system, methods of fault location underground cable system.

### **Sub-Stations and Control Room:**

- Layout, design, construction standards of HT transformers and associated equipments (i.e. CBs, Isolators, Las, Capacitors, CTs, PTs, etc)

- Power and distribution transformers - their erection, commissioning, fault locations, and maintenance.
- Protective relays and measuring equipments and their networking. Transformer protection, Generator, Diesel Generator protection.
- Testing commissioning, fault locations, maintenance and protection of cables and testing equipments.
- Design and installation of capacitor banks and their maintenance.
- Erection, testing, commissioning and maintenance of control room equipments including station batteries and communication system.

Motors and Generators (DC and AC):

- Installation, testing, commissioning, protection and control and maintenance of industrial motors.

**Operational knowledge for the following:-**

Operational knowledge on measuring instruments i.e Ammeters, Voltmeters, Multimeters, Tongue Testers, Meggers, HV testing kits etc.

Illumination, fire fighting and earthing systems including maintenance.

Preparation, representation, interpretation of electrical drawings and execution of electrical work. Flame proof equipment/ intrinsically safe for underground switch board, panels, breakers etc for underground.

**SAFETY RULES-** Working Knowledge of-

- Safety regulation -2010 of CEA (Measures relating to safety and electric supply) All regulations including Regulations for mining installation.
- Fire safety procedures, fire protection of generators, transformer and fire fighting and protection .
- Protection and restoration of persons suffering from electric shock.

**Section B (30 MCQ of 1 mark each ) - 30 Marks**

**खण्ड बी (30 वस्तुनिष्ठ प्रश्न प्रत्येक 1 अंक का) – 30 अंक**

This section is common for all Posts, will carry 30 questions belonging to / यह अनुभाग सभी पदों के लिए समान है, जिसमें 30 प्रश्न होंगे:

- I. **General Knowledge** - About India and its international relations, General Science etc/  
सामान्य ज्ञान - भारत और उसके अंतरराष्ट्रीय संबंध, सामान्य विज्ञान आदि।
- II. **General Awareness** - About Sports, Defense, Books, Prizes, About Indian democracy,  
etc./ सामान्य जागरूकता - खेल, रक्षा, पुस्तकें, पुरस्कार, भारतीय लोकतंत्र के बारे में, आदि।
- III. **Reasoning, Verbal & Mental Ability** - Synonym & Antonym (Hindi/English),  
Grammar, Relationship etc./ तर्क, मौखिक और मानसिक क्षमता - पर्याय और विलोम  
(हिंदी/अंग्रेजी), व्याकरण, संबंध इत्यादि।
- IV. **Quantitative aptitude** - Work relationship, Profit & Loss, Speed etc / मात्रात्मक रुझान -  
वर्क रिलेशनशिप, लाभ एवं हानि, गति इत्यादि।

## PRESCRIBED PROFORMAE

### Performa-I

**The form of certificate to be produced by Scheduled Castes and Scheduled Tribes candidates applying for appointment to posts under the Government of India**

This is to certify that Shri/Shrimati/Kumari\*.....  
son/daughter\* of ..... of village/town\*  
..... in District/Division\* ..... of the  
State/Union Territory\* ..... belongs to the..... caste/tribe\* which is  
recognised as a Scheduled Caste/Scheduled Tribe\* under:—

- @ The Constitution (Scheduled Castes) Order, 1950
- @ The Constitution (Scheduled Tribes) Order, 1950
- @ The Constitution (Scheduled Castes) Union Territories Order, 1951
- @ The Constitution (Scheduled Tribes) Union Territories Order, 1951

[as amended by the Scheduled Castes and Scheduled Tribes List (Modification) Order, 1956; the Bombay Reorganisation Act, 1960, the Punjab Reorganisation Act, 1966, the State of Himachal Pradesh Act, 1970, the North Eastern Areas (Reorganisation) Act, 1971, the Scheduled Castes and Scheduled Tribes Order (Amendment) Act, 1976., the State of Mizoram Act, 1986, the State of Arunachal Pradesh Act, 1986 and the Goa, Daman and Diu (Reorganisation) Act, 1987.]

- @ The Constitution (Jammu and Kashmir) Scheduled Castes Order, 1956
- @ The Constitution (Andaman and Nicobar Islands) Scheduled Tribes Order, 1959 as amended by the Scheduled Castes and Scheduled Tribes Order (Amendment) Act, 1976
- @ The Constitution (Dadar and Nagar Haveli) Scheduled Castes Order, 1962
- @ The Constitution (Dadar and Nagar Haveli) Scheduled Tribes Order, 1962
- @ The Constitution (Pondicherry) Scheduled Castes Order, 1964
- @ The Constitution (Uttar Pradesh) Scheduled Tribes Order, 1967
- @ The Constitution (Goa, Daman and Diu) Scheduled Castes Order, 1968
- @ The Constitution (Goa, Daman and Diu) Scheduled Tribes Order, 1968
- @ The Constitution (Nagaland) Scheduled Tribes Order, 1970
- @ The Constitution (Sikkim) Scheduled Castes Order, 1978
- @ The Constitution (Sikkim) Scheduled Tribes Order, 1978
- @ The Constitution (Jammu & Kashmir) Scheduled Tribes Order, 1989
- @ The Constitution (SC) Order (Amendment) Act, 1990
- @ The Constitution (ST) Order (Amendment) Act, 1991
- @ The Constitution (ST) Order (Second Amendment) Act, 1991
- @ The Scheduled Castes and Scheduled Tribes Orders (Amendment) Act 2002
- @ The Constitution (Scheduled Castes) Order (Amendment) Act, 2002
- @ The Constitution (Scheduled Castes and Scheduled Tribes) Orders (Amendment) Act, 2002
- @ The Constitution (Scheduled Castes) Orders (Second Amendment) Act, 2002

% 2. Applicable in the case of Scheduled Castes/Scheduled Tribes persons who have migrated from one State/Union Territory Administration to another.



This certificate is issued on the basis of the Scheduled Castes/Scheduled Tribes certificate issued to Shri/Shrimati\*..... Father/Mother of Shri/Shrimati/Kumari ..... of village/town\* ..... in District/Division\*..... of the State/Union Territory\*..... who belongs to the caste/tribe\* which is recognised as a Scheduled Caste/Scheduled Tribe in the State/Union Territory\* of ..... issued by the ..... dated .....

% 3. Shri/Shrimati/Kumari\*..... and/or\* his/her\* family ordinarily resides in village/town\*..... of..... District/Division\* of the State/Union Territory\* of.....

Signature.....  
\*\*Designation.....

(With Seal of Office)  
State/Union Territory\*

Place: .....

Date: .....

\*Please delete the words which are not applicable.

@Please quote specific Presidential Order.

% Delete the paragraph which is not applicable.

NOTE: The term “ordinarily reside (s)” used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.

\*\*List of authorities empowered to issue Scheduled Caste/Scheduled Tribe Certificate.

- (i) District Magistrate/Additional District Magistrate/Collector/Deputy Commissioner/Additional Deputy Commissioner/Deputy Collector/1st Class Stipendiary Magistrate/† Sub-Divisional Magistrate/Taluka Magistrate/Executive Magistrate/Extra Assistant Commissioner.  
†(not below of the rank of 1st Class Stipendiary Magistrate).
- (ii) Chief Presidency Magistrate/Additional Chief Presidency Magistrate/Presidency Magistrate.
- (iii) Revenue Officers not below the rank of Tehsildar.
- (iv) Sub Divisional Officer of the area where the candidate and/or his/her family normally resides.
- (v) Administrator/Secretary to Administrator/Development Officer(Lakshadweep)

**FORM OF CERTIFICATE TO BE PRODUCED BY OTHER BACKWARD CLASSES APPLYING FOR APPOINTMENT TO POSTS UNDER THE GOVERNMENT OF INDIA**

This is to certify that Shri/Smt./Kumari \_\_\_\_\_ son/daughter of \_\_\_\_\_ of \_\_\_\_\_ village/town \_\_\_\_\_ in \_\_\_\_\_ District/Division \_\_\_\_\_ in the State/Union Territory \_\_\_\_\_ belongs to the \_\_\_\_\_ community which is recognised as a backward class under the Government of India, Ministry of Social Justice and Empowerment's Resolution No. \_\_\_\_\_ dated \_\_\_\_\_\*. Shri/Smt./Kumari \_\_\_\_\_ and /or his/her family ordinarily reside(s) in the \_\_\_\_\_ District/Division of the \_\_\_\_\_ State/Union Territory. This is also to certify that he/she does not belong to the persons/sections (Creamy Layer) mentioned in Column 3 of the Schedule to the Government of India, Department of Personnel & Training O.M. No. 36012/22/93-Estt. (SCT) dated 8.9.1993, OM No. 36033/3/2004-Estt. (Res) dated 9<sup>th</sup> March, 2004, O.M. No. 36033/3/2004- Estt. (Res) dated 14<sup>th</sup> October, 2008 and O.M. No. 36033/1/2013-Estt. (Res) dated 27<sup>th</sup> May, 2013\*\*.

Signature \_\_\_\_\_  
Designation \_\_\_\_\_ \$

Dated:

Seal

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\*- The authority issuing the certificate may have to mention the details of Resolution of Government of India, in which the caste of the candidate is mentioned as OBC.

\*\* - As amended from time to time.

\$ - List of Authorities empowered to issue Other Backward Classes certificate will be the same as those empowered to issue Scheduled Caste/Scheduled Tribe certificates.

Note:- The term "Ordinarily" used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.

**Form of declaration to be submitted by the OBC candidate (In addition to the community certificate)**

I ..... Son/ daughter of Shri ..... resident of village/ town/ city ..... district ..... State..... hereby

declare that I belong to the ..... community which is recognized as a backward class by the Government of India for the purpose of reservation in services as per orders contained in Department of Personnel and Training Office Memorandum No 36102/ 22/ 93 – Estd. (SCT) dated 8-9-1993. It is also declared that I do not belong to persons/ sections/ sections (Creamy Layer) mentioned in column 3 of the Schedule to the above referred Office Memorandum dated 8-9-1993, O.M. No. 36033/ 3/ 2004 –Estd. (Res.) dated 9<sup>th</sup> March, 2004 and O.M. No. 36033/ 3/ 2004 –Estd. (Res.) dated 14<sup>th</sup> October, 2008.

**Signature:.....**

**Full Name:.....**

**Address:.....**

**Government of.....**

**(Name & Address of the authority issuing the certificate)**

**INCOME & ASSEST CERTIFICATE TO BE  
PRODUCED BY ECONOMICALLY WEAKER  
SECTIONS**

Certificate No.....

Date:.....

VALID FOR THE YEAR .....

This is to certify that Shri/Smt./Kumari .....  
son/daughter/wife of ..... permanent resident of,  
..... Village/Street, ..... Post Office,  
.....District..... in the State/Union  
Territory..... Pin Code.....whose photograph  
is attested below belongs to Economically Weaker Sections, since  
the gross annual income\* of his/her family\*\* is below Rs. 8 lakh  
(Rupees Eight Lakh only) for the financial year ..... His/her  
family does not own or possess any of the following assets\*\*\* :

- I. 5 acres of agricultural land and above; II.  
Residential flat of 1000 sq. ft. and above;
- III. Residential plot of 100 sq. yards and above in notified  
municipalities;
- IV. Residential plot of 200 sq. yards and above in. areas other  
than the notified municipalities.

2. Shri/Smt./Kumari ..... belongs to the .....  
caste which is not recognized as a Scheduled Caste, Scheduled  
Tribe and Other Backward Classes (Central List).

Signature with seal of Office.....

Name.....

Designation.....

Recent  
passport size  
attested  
photograph of  
the applicant

**\*Note 1:** Income covered all sources i.e. salary, agriculture, business, profession, etc.

**\*\*Note 2:** The term '**Family**' for this purpose include the person, who seeks benefit of reservation, his/her parents and siblings below the age of 18 years as also his/her spouse and children below the age of 18 years

**\*\*\*Note 3:** The property held by a 'Family' in different locations or different places/cities have been clubbed while applying the land or property holding test to determine EWS status.

\*\*\*\*\*

UNDERTAKING TO BE GIVEN BY THE EX- SERVICEMEN

I....., bearing Roll No.....,

Appearing for the Document Verification of the .....

Examination, 20....., do hereby undertake that:

(a) I am entitled to the benefits admissible to Ex- Servicemen in terms of the Ex- Servicemen Re-employment in Central Civil Services and Post Rules, 1979, as amended from time to time.

(b) I have not joined the Government Job on civil side (including Public Sector Undertakings, Autonomous Bodies/ Statutory Bodies, Nationalized Banks, etc.) in Group 'C' & 'D' posts on regular basis after availing of the benefits of reservation given to ex-servicemen for re-employment; or

(c) I have availed the benefit of reservation as ex-servicemen for securing Government job on civil side. I have joined as ..... on .....in the office of.....I hereby undertake that I have submitted the self-declaration/ undertaking to my current employer about date wise detail of the application for the above mentioned examination for which I had applied for before joining the present civil employment; or

(d) I have availed the benefit of reservation as ex-servicemen for securing Government job on civil side. I have joined as.....On .....in the office of.....Therefore, I am eligible for age-relaxation only;

I hereby declare that the above statements are true, complete and correct to the best of my knowledge and belief. I understand that in the event of any information being found false or incorrect at any stage, my candidature/ appointment is liable to be cancelled / terminated.

Signature:.....

Name: .....

Roll No:.....

Date :.....

Date of appointment in Armed Forces:.....

Date of Discharge:.....

Last Unit/ Corps:.....

Mobile No:.....

Email ID:.....

Form-V

Certificate of Disability

(In cases of amputation or complete permanent paralysis of limbs or dwarfism and in case of blindness)

[See rule 18(1)]

(Name and Address of the Medical Authority issuing the Certificate)

Recent passport size attested photograph

(Showing face only) of the person with disability.

Certificate No.

Date:

This is to certify that I have carefully examined Shri/Smt./Kum. \_\_\_\_\_ son/wife/daughter of Shri \_\_\_\_\_ Date of Birth (DD/MM/YY) \_\_\_\_\_ Age \_\_\_\_\_ years, male/female - \_\_\_\_\_ registration No. \_\_\_\_\_ permanent resident of House No. \_\_\_\_\_ Ward/Village/Street \_\_\_\_\_ Post Office \_\_\_\_\_ District \_\_\_\_\_ State \_\_\_\_\_, whose photograph is affixed above, and am satisfied that:

(A) he/she is a case of:

- locomotor disability
- dwarfism
- blindness

(Please tick as applicable)

(B) the diagnosis in his/her case is \_\_\_\_\_

(A) he/she has \_\_\_\_\_ % (in figure) \_\_\_\_\_ percent (in words) permanent locomotor disability/dwarfism/blindness in relation to his/her

\_\_\_\_\_ (part of body) as per guidelines ( .....number and date of issue of the guidelines to be specified).

2. The applicant has submitted the following document as proof of residence:-

Nature of Document	Date of Issue	Details of authority issuing certificate

(Signature and Seal of Authorised Signatory of notified Medical Authority)

Signature/thumb impression of the person in whose favour certificate of disability is issued
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**APPENDIX- I**

**Certificate regarding physical limitation in an examinee to write**

This is to certify that, I have examined Mr/Ms/Mrs \_\_\_\_\_ (name of the candidate with disability), a person with \_\_\_\_\_ (nature and percentage of disability as mentioned in the certificate of disability), S/o/D/o \_\_\_\_\_, a resident of \_\_\_\_\_ (Village/District/State) and to state that he/she has physical limitation which hampers his/her writing capabilities owing to his/her disability.

Signature

Chief Medical Officer/Civil Surgeon/ Medical Superintendent of a  
Government health care institution

Name & Designation.

Name of Government Hospital/Health Care Centre with Seal

Place:

Date:

**Note:**

Certificate should be given by a specialist of the relevant stream/disability (eg. Visual impairment – Ophthalmologist, Locomotor disability – Prthopaedic specialist/PMR).

**Letter of Undertaking for Using Own Scribe**

I \_\_\_\_\_, a candidate with \_\_\_\_\_ (name of the disability) appearing for the \_\_\_\_\_ (name of the examination) bearing Roll No. \_\_\_\_\_ at \_\_\_\_\_ (name of the centre) in the District \_\_\_\_\_, \_\_\_\_\_ (name of the State). My qualification is \_\_\_\_\_.

I do hereby state that \_\_\_\_\_ (name of the scribe) will provide the service of scribe/reader/lab assistant for the undersigned for taking the aforesaid examination.

I do hereby undertake that his qualification is \_\_\_\_\_. In case, subsequently it is found that his qualification is not as declared by the undersigned and is beyond my qualification, I shall forfeit my right to the post and claims relating thereto.

(Signature of the candidate with Disability)

Place:

Date:

**TA CLAIM FORM FOR CANDIDATES APPEARING FOR WRITTEN TEST**  
**( APPLICABLE IN CASE OF SC/ST CANDIDATES)**

**Please enclose original bus/train tickets through which inward journey performed**

1.	Roll No.	
2.	Name and address of test center	
3.	Full name of candidate (in block letters)	
4.	Address ( as indicated in Admit Card)	
5.	Name of nearest Railway Station from Permanent Address	
6.	a) Name of Railway Station from which actual journey commenced.	
	b) If journey was performed by bus, name of place from which actual journey commenced.	

7. Travel  
Details : i)

Inward Journey		Journey Date	Mode & Class of Travel	Amount Claim
From	To			

ii)

Proposed outward Journey		Journey Date	Mode & Class of Travel	Amount Claim
From	To			

TOTAL ( i + ii) in Rupees.

8. Bank Details :

Name of the Bank in which TA claim is to be reimbursed :	
Address/Branch Name of Bank :	
Account Holder's Name :	
Account Number :	
IFSC Code :	

### CERTIFICIATE

I certify that the concessional return ticket(s) was/were not available to the test centre on the date of commencement of journey.

Certified that I have actually travelled and for the return journey shall travel by the class for which claim has been preferred.

Certified that the railway fare claimed is by the shortest route from the railway station nearest to residence or from where I actually performed the journey to the test centre and back to the same station.

Certified that I am not a Railway employee and have not availed of any free or concessional pass issued by the Railways or any other authority.

Bus ticket is enclosed (in case of travel by bus)

Certified that I have not availed of any LTC or student concessions or any other travel concession while performing the journey.

Signature of Candidate : \_\_\_\_\_

Name : \_\_\_\_\_

Date : \_\_\_\_\_

Claim checked, verified and countersigned

N.C.L. CO-ORDINATOR.  
(Signature)

FOR OFFICE USE : DO NOT WRITE BELOW DOTTED LINE

.....

Passed for Payment of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ Only)

Accts. Asstt/Acctt. \_\_\_\_\_

Finance Executive \_\_\_\_\_

Received Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only)

Date : \_\_\_\_\_