



## North Eastern Railway

Office of the General Manager (Personnel) - 273012

File No. NER-HQ0PERS/60/2023-Dy. CPO/GAZ/HQ/NER (105010)

Date- 28.11.2024

1. Secretary/Establishment & Director/Vigilance/Railway Board, New Delhi
2. Secretary/General Manager & Additional General Manager, NER, GKP
3. DG/NAIR/Lalbag/Vadodara, Director/RDSO & General Manager/BLW/BSB
4. Secretary/All PHODs, HODs & CAO/NER, GKP,
5. All DRMs, ADRMs, CPM/Gati Shakti, Sr.DEEs, Sr.DPOs, Sr.DEE/TRS, NER.
6. All Officers of Personnel & Electrical Department, NER, CWM/GKP & IZNS
7. Railway Website Copy.

**Sub:-**Selection for the post of **AEE-70%** Group-B for the vacancy cycle of year 2025-2026.

**Ref:-**Railway Board's letter no. E(GP)2024/2/28 dt. 27.09.2024, 08.10.2024 & 06.11.2024.

\*\*\*\*\*

In reference to Railway Board's letter no. E(GP)2024/2/28 dt. 27.09.2024, 08.10.2024, and 06.11.2024, it is proposed to conduct selection through CBT mode and Viva-voce for **04** posts of AEE (Level-08) against 70% of vacancies for the vacancy cycle 2025-26. The details are given below:-

### 1. Vacancy:-

| Post | UR | Reservation required<br>as per Roaster |    | Total | PwBD | PwBD Classification<br>as per Railway Board's letter no.<br>E(GP)2022/2/20 dt. 14.11.2022 |
|------|----|----------------------------------------|----|-------|------|-------------------------------------------------------------------------------------------|
|      |    | SC                                     | ST |       |      |                                                                                           |
| AEE  | 02 | 01                                     | 01 | 04    | 01   | LD-OA/OL, Leprosy Cured,<br>Acid attack victims. & HI (HH)                                |

### 2. Timeline for date of submission of Application and Statements:-

|    |                                                                                                                                                                                                                                             |            |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 1. | Last date for submission of Application to the Controlling Officer                                                                                                                                                                          | 09.12.2024 |
| 2. | Applications to be forwarded by the Controlling Officer to the concerned Personnel Officers of HQ/Divisions/Units concerned for Verification/Scrutinizing of service particulars/eligibility of the employee for selection etc.             | 11.12.2024 |
| 3. | Concerned Personnel Officers should forward all the Applications ( <b>in Soft &amp; Hard copy</b> ) with a remark (Eligible or Non-Eligible) in the consolidated list in profarma ( <b>Annexure-III</b> ) to Gaz. Section, PCPO Office/GKP. | 13.12.2024 |

### 3. Mode of Submission of Application for Regular Selection:-

Willing Candidates are required to fill-up his 'Basic Details' in **Annexure-I**. It is mandatory and hence all the columns need to be filled.

### 4. Eligibility:-

**a.** In terms of Railway Board's letter no. E(GP)2019/2/25 (RBE No. 216/2019) dt. 27.12.2019 and Para 6.2.1 of master circular no. 68, Group-C employees working in Level-6 (7<sup>th</sup> CPC) Pay Band- 02 Rs. 9300-34800 with Grade Pay- Rs. 4200 and above in pay Matrix with 3 years of non-fortuitous service in level 6 and above in pay matrix including non-fortuitous service rendered in the corresponding pre-revised grade pay as on 01.01.2025 will be eligible.

**b.** In terms of Railway Board's letter no. E(GP)2024/2/28 dt. 08.10.2024 [RBE no. 93/2024] (Attached as Annexure-IV), it has been decided by Board that henceforth, in respect of selection (70%) to Group 'B' posts in all departments, all employees who are eligible and who volunteer for the selection should be considered without any limitation of number, as is being done in case of Selection to the Group 'B' posts of Assistant Personnel Officer.

c. In terms of Railway Board's letter no. E(GP)2024/2/28 dt. 14.10.2024, an employee who has been medically de-categorized should have rendered the requisite eligibility service in the relevant grade(s) after absorption in the alternate post for being eligible for promotion to Group-B posts. These instructions pretend only to reckoning eligibility for promotion to Group-B posts.

d. In terms of instructions contained in Railway Board's letter no. E(GP)2005/2/74 dt. 13.03.2008 (RBE No. 40/2008), in case of employees transferred own request to a new unit in the same category of post and assigned bottoms seniority therein, the service rendered by them in previous unit may be reckoned for determining their eligibility wherever a minimum length of service is prescribed as a condition, for promotion in new unit, subject the condition that the length of service which is so allowed to be counted does not exceed the length of service of the immediate senior in the new unit. This is also applicable for promotion to Group-B posts also.

e. Further the service rendered by Group-C staff in Grade Pay- Rs. 4200 (Level 6) of pay Matrix 7<sup>th</sup> CPC in MACP, grade will not be considered for reckoning the period of service.

f. In terms of Board's letter no. E(NG)I-93/PMI/4 dt. 18.01.1993, the time spends by the Railway Servant under training immediately before appointment to service will be counted as service for the purpose of Group-B Selection/LDCE.

#### **Selection to Group-B posts of AEE-**

Supervisor Technical staff including running staff (for running staff equated stationary grade vide RBE No.92/2015) working in Grade PB-2 Rs. 9300-34800+GP- 4200, Level-06 (7<sup>th</sup> CPC) and above grades with 03 years of non-fortuitous service as on 01.01.2025 in the grade (including non-fortuitous service rendered in the corresponding pre-revised grade) will be eligible for selection, in terms of RBE No. 216/2019 and in terms of RBE No. 93/2024.

#### **5. Scrutiny of Application:-**

The Personnel Department of concerned HQ/Division/Workshop/unit are requested to scrutinize the application and verify the eligibility as per the Service Records maintained by them and certify their eligibility or otherwise in the application of each candidate. After scrutinizing the applications HQ/Divisions/Workshop/Units should forward the list of Eligible Candidates along with the applications in the prescribed proforma as in **Annexure-III** and forward the same to Gaz. Section of PCPO Office/GKP in hard copy. **It is the responsibility of the HQ/Divisions/Workshop/Units to certify the eligibility of candidates concerned.**

#### **6. Pre-Selection Training:-**

As per Railway Board's letter no. E/(GP)2010/2/39 & RBE No. 142/2019 dt.28.08.2019, pre-selection training is to be given to **SC & ST candidates** for this selection.

15-20 working days (3 to 4 weeks) pre-selection training for SC & ST candidates have to be conducted in terms of Railway Board's instructions contained in their letter No. E(GP) 2010/2/39 dt.28.08.2019. In case any eligible candidate(s) is/are not willing to attend the pre-selection training, written refusal should be submitted by them. Eligible candidates, who fall sick or proceed on leave during the period of pre-selection training, will not be eligible for second chance and they will have to resort to self-training or make their own arrangement for training. Not attending the coaching classes on account of leave, sickness or any other reasons will not be treated as an excuse of cancellation of selection or for demanding another coaching class.

Secretary to PHODs of the concerned Department is advised to chalk out a pre-selection training program, without waiting for the final Eligibility List, conduct the same & send completion report of the pre-selection training to this office ensuring that the said training is completed before 30.12.2024. However, merely attending pre-selection training will not make any candidate automatically eligible for appearing in the examination.

If any of the candidates included in the eligibility list has been transferred from the division/unit as indicated against his/her name, he/she should be advised of the selection through the present Controlling officer and his acknowledgement be obtained. As per Board's instructions, a Sr. Scale officer/ Unit-in-charge may be nominated who will be responsible to ensure that the notification is brought to the notice of all the candidates in the respective organization under him. It should be the personal responsibility of the concerned officer to ensure that no complaint whatsoever arises on a future date. A line in confirmation that this notification has been circulated to all units/subunits may be sent by the respective Sr. DPO's/DPO's/SPO's etc.

### 7. Scheme of Examination:-

In terms of Railway Board's letter No. E(GP) 2022/2/24 dt. 07.10.2022, the written examination for AEE (Regular-70%) selection will be held through Centralized Computer Based Test (CBT) which shall comprise of One Paper which shall have 100% Objective Type Multiple Choice Question Only. The paper will be 100 marks and the distribution of marks will be as under-

|    |                                                                                                                                                                             |          |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| a. | Professional Subject including Optional Question of 10 Marks on Official Language Policy and Rules                                                                          | 70 Marks |
| b. | Establishment Matters and Financial Rules                                                                                                                                   | 30 Marks |
| c. | Qualifying Marks                                                                                                                                                            | 60 Marks |
| d. | Duration                                                                                                                                                                    | 02 Hours |
| e. | There shall be No Negative Marking in written examination held as part of Selections (70%), where the final panels are made on Seniority Basis in terms of RBE No. 93/2024. |          |
| f. | Assessment of record of service and Viva-voce will be conducted in terms of Para 10.4 of Master Circular No. 68, dt. 08.07.2019.                                            |          |

The Candidates have the option to give answers in Hindi or English in the written tests (CBT) as well as in Viva-voce.

The mark prescribed for qualifying in the CBT/Written Examination is 60%. Such passed candidates will be directed for medical examination for selection to Group-B post of AEE as Para 530 (a) of IRMM for selection of Group-B post of AEE. On passing the prescribed medical examination, such candidates will be called for Viva-voce test in terms of Railway Board's letter no. E(GP)2024/2/28 dt 08.10.2024 (RBE No. 93/2024).

The marks allotted in Viva-voce and record of service along with qualifies marks are as under:-

|                                                                                                                                   |                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| Record of Service                                                                                                                 | 25 (maximum marks)                                          |
| Viva-voce (The Viva-voce consists of personality address, leadership and academic and technical qualifications of the candidates) | 25 (maximum marks)                                          |
| Qualifying Marks                                                                                                                  | 30 (including minimum of 15 marks of the record of service) |

### 8. Syllabus:-

As per Railway Board's letter no. E(GP)2022/02/04 dt 07.11.2022 is enclosed as **Annexure-II** to this Notification.

### 9. Other Instructions:-

a. It is the personal responsibility of the concerned Officer-In charge and Unit-In charge of the respective HQ/Division/Workshop/Unit to ensure that this notification is circulated amongst the employees working under respective HQ/Division/Workshop/Unit so as to enable the eligible employees to apply for appearing for Group-B Selection in time. Also a Copy of the said Notification may be placed on Notice Board, Training Centre and Other important places.

b. The Office concerned from where the employee has proceeded on deputation must inform the staffs who are on deputation or who are working with other Département/ Ministries well in time. Their application must be routed through 'Personnel Branch' of their parent office and the same may be sent to this office after verification of their eligibility.

c. Dy.CPO/Sr.DPO/DPO/SPO/APO should certify that all the employees of their HQ/Division/Workshop/Unit, working on deputation to other units are informed well in advance to submit their application in time.

d. APARs of the employees as per the eligibility list notified for above selection for the last five years to be kept ready by the concerned HQ/Divisions/Workshop/Units. It may be ensured that representations, if any, received from the said employees within the stipulated period, have been disposed of immediately.

e. All controlling Officers should relieve the eligible employees as per the eligibility list, who will be notified in due course, who are willing to appear in the above selection and nobody should be held back under any circumstances from appearing in the selection.

f. The employees applying for appearing in the selection shall mention the personal/active mobile number registered in his/her HRMS account. The respective HQ/Division/Workshop/Unit shall check and ensure that the mobile number mentioned by the employee has been updated in his/her HRMS account as the OTP will be received on the same mobile number for the downloading of Admit Card, etc. This should invariably be ensured.

g. All the HQ/Division/Workshop/Units and applicants are advised to regularly visit NER website for any updates in the matter. This notification is being issued as per existing provisions/instructions of selection of Group-B post. In case any changes in the existing provisions/instructions are issued by Railway Board, the same will be uploaded in the Railway's website in due course.

#### **10. Regarding Supplementary Examination:-**

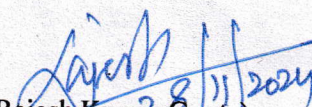
The supplementary examination will be conducted subject to the following condition and that to with the approval of competent authority –

a. Only those candidates, who are detained on administrative account for appearing in the main examination, will be allowed to appear in the supplementary examination after Dy.CPO/Sr.DPO/Unit In-charge gives categorical reason with regards to candidate's failure to appear in the main examination.

b. The candidates who are under sick during the examination and are continuing so since the date well before the examination date, will be allowed to take supplementary examination only after MD/CMS/DMO's certificate to this effect duly forwarded by the Dy.CPO/Sr.DPO/Unit In-charge concerned.

Please ensure compliance and acknowledge receipt of this notification.

DA- As Above

  
(Rajesh Kumar Gupta)  
Chairman/RRC  
for General Manager (P)

Application cum proforma for Selection to the Group-B post of AEE/NER against 70% quota Vacancy Cycle – 2025-2026

Attested  
Recent Photo

|    |                                                                                                                                                                                                                                                |                                    |             |                                                   |   |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------|---------------------------------------------------|---|
| 1  | Name (with full initials in Block letters)                                                                                                                                                                                                     |                                    |             |                                                   |   |
| 2  | Father's name/ Husband's Name                                                                                                                                                                                                                  |                                    |             |                                                   |   |
| 3  | Present designation/holding lien on                                                                                                                                                                                                            |                                    |             |                                                   |   |
| 4  | Station of posting/division/unit                                                                                                                                                                                                               |                                    |             |                                                   |   |
| 5  | Controlling Officer Designation                                                                                                                                                                                                                |                                    |             |                                                   |   |
| 6  | Date of Birth & HRMS ID                                                                                                                                                                                                                        |                                    |             |                                                   |   |
| 7  | Category (UR/SC/ST), please write clearly                                                                                                                                                                                                      |                                    |             |                                                   |   |
|    | Please write clearly, if SC/ST Candidate, provide willingness/unwillingness for Pre-Selection Training.                                                                                                                                        |                                    |             |                                                   |   |
| 8  | Date of initial appointment to service with designation/grade                                                                                                                                                                                  |                                    |             |                                                   |   |
| 9  | Qualification                                                                                                                                                                                                                                  |                                    |             |                                                   |   |
| 10 | Employee Number (11 digit Employee ID, In case there are no 11 digits, put 0 first) attach Pay-Slip                                                                                                                                            |                                    |             |                                                   |   |
| 11 | Mobile No. (Registered with HRMS ID) & Email ID                                                                                                                                                                                                |                                    |             |                                                   |   |
| 12 | Whether PwBDs, if yes please write & specify category                                                                                                                                                                                          |                                    |             |                                                   |   |
| 13 | Whether scribe required in case of PwBDs (Enclose valid medical certificate)                                                                                                                                                                   |                                    |             |                                                   |   |
| 14 | Date of regular appointment/promotion in Grade Rs.9,300-34,800, Grade Pay Rs.4,200/4,600/- (Pay Matrix Level-6/7)<br>Note: Ad-hoc/ MACP/ fortuitous service will not be counted.                                                               |                                    |             |                                                   |   |
| 15 | (i) Whether Staff came on transfer from other Seniority Unit/Other Railway, if yes indicate length of service in present Seniority unit as per service record.<br>(ii) Date of joining on North Eastern Railway (if joined from Other Zone/PU) |                                    |             |                                                   |   |
| 16 | Length of non-fortuitous service in present Gr.9,300-34,800, Grade Pay Rs.4,200/4600 (Pay Matrix Level-6/7) as on 01.01.2025                                                                                                                   |                                    |             |                                                   |   |
| 17 | Date of regular promotions                                                                                                                                                                                                                     |                                    |             |                                                   |   |
|    | Grade                                                                                                                                                                                                                                          | Date Of Promotion on regular basis | Designation | Length of Non-fortuitous service as on 01.01.2025 |   |
|    |                                                                                                                                                                                                                                                |                                    |             | Y                                                 | M |
|    | Rs.5000-8000/Rs.5500-9000, Rs.9300-34000+GP 4200/- (Pay Matrix Level-06)                                                                                                                                                                       |                                    |             |                                                   |   |
|    | Rs.6500-10500/ Rs.7450-11,500, Rs.9300-34800+4600/- (Pay Matrix Level-07)                                                                                                                                                                      |                                    |             |                                                   |   |

I,.....S/o/D/o.....do hereby declare that I have gone through the instructions in GM/P's letter No NER-HQ0PERS/60/2023-DY CPO/GAZ/HQ/NER (105010) dt-28.11.2024 and I declare that the above particulars given by me are correct to the best of my knowledge and for any wrong declaration I am liable to be held responsible for that.

Date:

Signature of applicant

Name-

Designation-

Certificate to be recorded by the respective Personnel Branch Officer who verified the service particulars of the applicant from the service record available in his office:

1. It is certified that the above service particulars of Sh/Ms.....S/o/D/o Sh ..... have been checked and verified from the service record available in this office and have been found to be correct.

2. Sh./Ms..... S/o/D/o Sh..... is eligible/ineligible the general conditions of eligibility as on 01.01.2025 as stipulated in GM/P letter No- NER-HQ0PERS/60/2023-DY CPO/GAZ/HQ/NER (105010) dt-28.11.2024.

3. It is certified that no Ad-hoc/MACP/fortuitous service has been taken into account for computing the eligibility service as on 01.01.2025 in Gr. Rs.5000-9000/9300-34800+4200/4600. In case of any variation in the service particulars this office will be held responsible.

Signature of Controlling Officer  
Name of Officer/Designation/Seal

Signature of Personnel Officer  
Name of Officer/Designation/Seal

**GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS  
(RAILWAY BOARD)**

No. E(GP)2022/2/4

New Delhi, dt:07/11/2022

**The General Managers,  
All Indian Railways/PUs.**

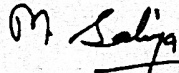
**(Kind Attn.:All PCPOs/PFAs/Dy.CPO(G) & Dy.CAO(G))**

**Sub.: Promotions to Group 'B' posts on Indian Railways - Introduction of  
Centralized Computer Based Multiple Choice Objective type  
examination (CBT) in all departments having Organised Services**

Board has prescribed syllabus for written examinations held as part of 30% LDCEs for promotion to Group 'B' posts in all Organised Services. Besides this, syllabus for 70% Selection for promotion to Group 'B' post of APO has also been prescribed by Board. Now, in the context of introduction of Centralised CBT for 70% Selections and 30% LDCEs for promotion to Group 'B' posts, Board has prescribed syllabus of 70% Selections and have also modified the syllabus for 30% LDCEs for all Group 'B' posts in Organised Departments. Similarly, syllabus for Establishment & Financial Rules has also been prescribed.

2. A copy each of the Syllabus for professional subjects prescribed by Board for 70% Selections and 30% LDCEs for promotion to Group 'B' posts in all Departments having Organised services along with the syllabus for Establishment & Financial Rules is enclosed for information. These syllabi are applicable for Selections & LDCEs to be conducted w.e.f.1.1.2023.

DA:As above

  
(Meenakshi Saluja)  
Dy. Director, Estt.(GP)-III  
Railway Board  
Ph. No. 233047250  
E.mail ID- meena.1964@gov.in

## **Syllabus for promotion to Group- B posts - 70% selection and 30% LDCE.**

### **Syllabus for Establishment Rules:**

1. Organization of the Personnel Department in Railways objectives functions and policies of Personnel Department.
2. Recruitment and Training, Classification of Services, Recruitment in Different services, Railway Recruitment Boards & Railway Recruitment Cells Compassionate Ground Appointments, Initial & In Service Training, Refresher Courses, Central Training Institutes, Training Centers in Zones, Divisions & Workshops, Training Modules for different posts, Training under Apprentices Act, Online Training, APARs.
3. General conditions of service in Railways, Seniority, Lien, Inter Railway & Inter Division transfers, Deputation, Promotion Policy & methods. Selection, Suitability, Trade Tests, Leave Rules, Pass Rules, Joining Time Reservation policy, HOER, Overtime, Payment of wages, current CPC Pay Rules, Advances in Railways.
4. Manpower planning, Rightsizing & Benchmarking, creation, extension and surrender of posts, creation of posts against new assets, different types of posts including workcharged posts.
5. The Railway Servants (Discipline & Appeal) Rules, 1968 and related instructions.
6. The Railway Services (Conduct) Rules, 1966 and related instructions.
7. Retirement benefits, qualifying service, pension, family pension, commutation gratuity, new pension scheme.
8. Staff welfare, SBF, Railway institutes, Railway schools, Ex-gratia payment, Incentive Bouns Scheme, Staff Grievances Redressal Mechanisms.
9. Industrial relations in Railways, recognized trade unions, industrial disputes. The Industrial Disputes Act, 1947. The Industrial Relations Code, 2020. The Trade Unions Act, 1926, PNM, PREM, JCM, Various Associations & Informal Meetings.
10. The Factories Act, 1948. The workmen's Compensation Act, 1923. Functions of Labour Enforcement Officers, Right to Information Act.
11. The scope of Information Technology in Railway e – office. HRMS, IPAS , LIMBS, ARPAN, CPGRAMS, ANUBHAV etc.

### **Syllabus for Financial Rules:**

1. Parliamentary Control over Railway Finance, Public Accountability, Canons of Financial Propriety.
2. Railway Budget - Budgetary terms, Types of Budgets, Budget cycle, Demand of Grants, Budgetary and Financial Reviews.
3. Rules of Allocation - Classification of expenditure - Control of expenditure - Responsibility Accounting - Performance Budgeting - Exchequer Control - Financial Results of Working lines.
4. Works Programme - Financial justification of Works - Surveys - Preparation of Estimates - Capital Budget - Control over Capital Expenditure - Reappropriation of Funds.
5. Financial control over Stores Expenditure - Purchase and Stores Keeping Procedure - Inventory Control and ABC Analysis.
6. Financial & Cost Control in Railway Workshops/Sheds/Units.
7. Rules and procedure relating to Tenders and contracts for execution of works and Procurement of Stores, M&P Programme and RSP.
8. Procedure for Possessing and finalizing Audit Objections and Draft Paras.
9. Delegation of Powers.
10. Losses, Frauds and Embezzlements.
11. General Financial Rules
12. Government e-Market (GeM)
13. Classification of Railway Revenue (Earnings)
14. Information Technology in general with specific reference to Railway's IT Applications
15. Taxation matters with special focus on GST & Income Tax
16. Organization of CGA and C&AG
17. Any other topic felt necessary from time to time

## **Syllabus for 70% Selections for promotion to Group 'B' posts of AEE in Electrical Department.**

### **A. Professional Subjects:**

#### **Part I: General Electrical Engg.**

1. Electrical Circuits: Electrical Circuit Elements (Resistance, Inductance and capacitance), Voltage and Current Sources, Ohm's law, Kirchoff's Voltage and Current Laws, DC & AC circuit analysis.
2. Electronic Devices & Analog Electronics: Semiconductor Diodes, Diode Rectifiers, Bipolar Junction Transistor, JFET, MOSFET, Transistor Biasing Circuits.
3. Power Electronics: Characteristics and comparison of Power Diodes, BJTs, Thyristors, SCR, GTO, IGBT and Power MOSFET. One phase and Three phase uncontrolled and controlled rectifiers, Features and working of Variable Voltage Variable Frequency (VVVF) drives and its applications.
4. Electrical Engg. Materials: Properties & applications of Electrical insulating materials, Magnetic materials, Conducting materials & Semiconducting materials.
5. Electrical Machines: DC Machines, Induction Machines and Synchronous Machines. Losses in rotating machines. Single phase and three phase transformers. Losses and efficiency of transformers, Machine Drives.
6. Renewable Energy Sources: Climate change, Global warming, Various sources of Renewable energy- Resources and applications, Solar Cells, Rooftop solar and land based solar plants- Concepts of Basic Design, construction and maintenance, Off grid and Grid connected solar plants, Wind turbines, Net Zero carbon emission, ECBC, Round the clock green energy, Energy Storage systems, Policies and regulations , Net and Gross metering, Business model, tendering.
7. Power System and Protection: Basic concepts of electrical power generation and various equipment. Concepts of transmission lines, cables, Series and shunt compensation, Electric field distribution and insulators, Distribution systems, Per-unit quantities, Circuit breakers, Concept of protection.

#### **Part II: Railways Electrical Engg.**

##### **1. General Services:**

- a. Power Supply arrangement: Radial distribution system, Looped(Ring Main )
- b. distribution systems. Layout & Equipment at Distribution sub-station. Operation & Maintenance of sub-station, Various testing at sub-station, overhead & underground distribution, protective devices & their coordination. Construction, erection & commissioning of new sub-station and distribution lines. Basic features of PVC and
- c. XLPE cables. Cable rating and derating, Cable laying. Concept of average

demand, peak demand, load factor & electrical billing. Power factor improvement, Electrical & fire safety, Safety auditing of sub-station, concept of energy audit, Functions of Electrical Inspector to Government (EIG) in Railways. Power line crossing, Electricity Act-2003, CEA Regulations, SCADA and Substation automation. Earthing arrangement.

- d. Building Electrification: Types of various wiring methods, metering & safety measures. Wire, switchgears & fittings used for wiring, Energy efficient appliances, scale of fittings as per policy in various types of quarters, various types of Tariffs, commercial connection, concept of prepaid and postpaid metering, concept of smart meters. Safety coordination, Electrical accidents and prevention.
- e. Illumination & Lighting: Various parameters related to illumination, Different types of illumination sources, lighting methods, classification of lux levels at various types of stations, yard lighting & street lighting. Passenger amenities at Railway stations.
- f. Water supply: Types of water supply system, Pumping system, Classification of pumps, Comparison of various pumps, fluid theory, discharge calculations. Centrifugal pump, turbine pump, Submersible pumps, characteristic curve of pumps, efficiency. Cavitations & priming of pumps, necessity of multistage pumping, storage capacity and purification of water. Installation, maintenance & troubleshooting of pumps, Starter & drives of pumps, automation of pumps.
- g. Lift & Escalator: Working of Lift & Escalator, Installation of Lift and Escalator. Maintenance, various safety devices, control panels & Safety aspects.
- h. Air Conditioning & Refrigeration: Theory of air conditioning, refrigeration cycles, various types of refrigerants, window/split/package AC unit. Central air conditioning plant, VRF system, air cooling systems, planning for capacity and drives for refrigeration plant, Maintenance and troubleshooting.
- i. Energy Conservation: Need of conservation of energy, Various measures being taken by railways to conserve energy in the field of Electrical General Services. Necessity and implementation of Open Access in Indian Railways. Energy conservation Act.

## **2. Traction distribution:**

- a. OHE: Basic design concepts of TRD system of conventional and 2x25kV system. Types of overhead equipment. Sectioning principles of OHE. Various parts of OHE. Foot Patrolling, current collection, Tower wagons, seasonal & cyclic checks, maintenance Schedule, Preventive maintenance Tools, failure investigation of OHE, earthing and bonding. Railway Electrification and process of construction. Power Blocks & Procedure to obtain it.
- b. PSI: Schematics of 1x25kV and 2x25kV traction substation with names/ratings of various equipment, protection scheme for TSS. Fixed and dynamic PF correction, Feeding stations, SSP & SPs, 132 kV transmission lines, PSI equipment.

Maintenance and failure investigation of PSI equipment.

- c. SCADA and Miscellaneous items: Operation and maintenance of remote control, traction power control organization, permit to work, emergency arrangements, coordination with operating and other departments. Liaison with supply authorities, maintenance and failure investigation of SCADA equipment.
- d. NDT techniques, Open Access, safety precautions for electrified sections, Latest development in TRD, MSG meetings. Instructions issued by Railway Board, RDSO's TI/MI, TCs, IRSOD & ACTM.

### **3. Train Lighting and AC Coaches:**

Systems of Train Lighting and Air conditioning on coaches, Self Generating Coaches, ICF TL/AC Coach Generation system. Equipment, circuits and protection in ICF TL/AC coaches. Emergency feed extension in coaches. EOG and HOG systems in coaches - Hotel Load converter and Interlocking panel. Equipment, power circuits and protection systems in LHB TL/AC coaches, Power car and Pantry car. Air Conditioning in ICF/LHB coaches, Heat Load Calculation, Precooling, Pulldown and Dynodrive tests. Maintenance schedules of ICF and LHB coaches. Duties of ACCM/ACCA. Pre-cooling of AC Coaches. Fire causes and prevention measures in coaches. SMIs, Modification Sheets and Technical circulars issued by RDSO and instructions by Railway Board and RDSO.

### **4. Electric Locos:**

Organizational structure and duties of officers & staff. Conventional AC & 3 phase locomotives on IR. Equipment in locomotives, their functioning / operations, maintenance / overhauling and testing parameters & maintenance schedules. Reliability & safety action plans. Traction Power Circuit, Auxiliary Circuit, Control Circuits and Pneumatic Circuits. Different types of braking arrangements. Locomotive maintenance schedules & various tests to be carried out. Working of Electric Loco Shed & Electric Loco Workshop. Safety items and safety checks involved in safe locomotive operation. Relevant paras of ACTM, Accident Manual, G&SR, IR SOD and Instructions issued by Railway Board, RDSO and CLW. Latest developments in the field of electric locomotives.

### **5. EMU and MEMU/Metros:**

Concept of EMU/MEMU/Metro trains, various types of EMU/MEMU stock, Conventional & 3 phase EMUs & their salient features. Different types of brakes used in EMU/MEMU/Metros. Power circuits, auxiliary, control circuits. Mechanical components and its functions. Different electrical equipment and its functions. Inspection/Maintenance/Overhauling schedules of EMUs/MEMU/Metros. Safety precautions and fire prevention in EMU/MEMU/Metros. Train Control Management System(TCMS). Recent developments in EMU/MEMU/Metros.

### **6. Electric Loco and EMU Operation:**

Organizational structure and duties of officers & staff. Crew management – Training, Monitoring & Counseling. Crew & loco links. HOER & Duty Rules. Loco utilization. SPAD (Signal Passing At Danger). Management of Crew lobby, running room, trips shed & TLC / Power controller office. Working of CMS & FOIS. Safe, punctual & efficient loco / EMU operation with online troubleshooting of locomotive / EMU failures. Relevant paras of ACTM, Accident Manual, G&SR, Instructions issued by Railway Board & RDSO. Latest developments in the field of electric locomotives / EMU operations.

## **7. Store Matters:**

Procedure related to procurement of stock items and non-stock items, distribution and accountal of stores. Receipt and custody of stores. Sale of surplus stores. Inventory management, ABC Analysis. Procurement through GeM, IREPS. Schedule of powers under stores matters.

## **8. Tenders and Contracts:**

Work proposals, Types of estimates & estimation stages. Type of tenders, earnest money, Performance guarantee, security deposit, technical & financial eligibility criteria, Merits and demerits of EPC tender. IRPMS. Procedure and stages of e-tendering through IREPS, General Condition of Contract (GCC) for works and service contracts, various provisions in Schedule of Power (SOP) under works matters, Basic principles of Project management, quality control in electrical works.

**NOTE:-** The above information may also be provided in Soft Copy either in Google Sheet or Excel Sheet.

Annexure - IV  
Railway Board's  
Letter

RBE No. 92/2024

GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS  
(RAILWAY BOARD)

No. E(GP)2024/2/28

New Delhi, dated: 08.10.2024

The General Managers,  
All Indian Railways & Production Units.

[Kind Attn.: PCPO / PFA / Dy. CPO (G) / Dy. CAO (G)]

Sub.: Promotions from Group 'C' to Group 'B' posts - Centralized CBT.

In terms of Para 203.4 of Indian Railways Establishment Manual Vol. I, the Zone of Consideration of eligible candidates for Selections for promotion to Group 'B' posts is determined in accordance with sliding scale in the order of seniority. In this regard, it has been decided by Board that henceforth, in respect of Selections (70%) to Group 'B' posts in all departments, all employees who are eligible and who volunteer for the Selection, should be considered without any limitation of number, as is being done in case of Selection to the Group 'B' post of Assistant Personnel Officer.

2. It has further been decided that in partial modification of Board's letter no. E(GP)2018/2/31 dated 19.03.2019, there shall be no negative marking in written examinations held as part of Selections (70%) where the final panels are made on seniority basis. However, negative marking @1/3<sup>rd</sup> of a mark for every wrong answer in the LDCs (30%) where panels are prepared on the basis of merit shall continue.

3. The aforesaid instructions would apply to Selections / LDCs notified after the date of issue of these instructions. Any Selection which has already been notified should be dealt with in terms of existing instructions only.

4. These instructions should be widely circulated.

5. Please acknowledge the receipt.

6. Hindi version will follow.



(Arti Singh Lal)  
Dy. Director-II/ Estt.(GP)  
Railway Board  
Ph. No. 23047250  
Email ID – arti.singh1@gov.com