NORTHERN RAILWAY (DELHI DIVISION)

No. 220-E/Elect./JE-II/Pt.-XI/DSL/P-11

Dt. 04.08.2025

NOTIFICATION NO. 18/2025/ of the Delhi Division)

SELECTION FOR PROMOTION TO THE POST OF <u>Junior Engineer/DSL/Elect.</u> IN PAY LEVEL- 6 AGAINST 25 % PROMOTE QUOTA IN DIESEL MECHANICAL DEPARTMENT OF DELHI DIVISION

1. It has been decided to hold a selection for filling up <u>06</u> vacancies for the post of <u>Junior Engineer/DSL/Elect.</u>, Pay Level - 6 against 25 % Promote Quota in DSL/Mechanical Department of Delhi Division. Bifurcation of vacancies is as under:

UR	SC	ST	Total	PwBD (in terms of Railway Board's letter no. E(NG)II/2017/RC-2/1 Policy dt. 27.02.2019)
05	01	-	06	

2. Eligibility and Service conditions:

- (i) The list of senior most eligible staff working as Sr. Tech./DSL/Elect., of DSL/Mech. Department of DLI division in Pay Level 6 and who are in the zone of consideration in 1:3 ratio based on their seniority, is enclosed as **Annexure-I.**
- (ii) A stand-by list of next senior employees is also enclosed as **Annexure-II**. Employees of this stand-by list will be included in the main list enabling them to appear for the written examination only in case of an employee/employees in the main list (**Annexure-I**) has/have expressed its unconditional unwillingness to appear for the selection on Proforma attached (**Annexure-III**) and forwarded to this office on or before 14.08.2025 along with objection of any employee against the seniority, if any.
- 3. **Syllabus:** A syllabus for the above selection is attached as **Annexure-IV.** This is a common syllabus for the post as approved by the concerned PHOD and is applicable for all Divisions/Units over Northern Railway.

4. Pre Selection Coaching

In terms of instructions contained in Railway Board's letter No. 88-E(SCT)I/42/2, dated 08.04.1991 pre-selection/pre-promotional training to SC/ST employees is to be conducted covering the syllabus of the examination for selection to safety category post and will be imparted for a period of 3 to 4 weeks. In case, if any employee expressed his/her un-willingness for pre-selection coaching a written declaration to that effect may be obtained and forwarded to this office for record. Pre-selection coaching is not necessary where there is no reserved vacancy (SC/ST) is available. Schedule of tentative dates:-

Tentative pre-selection coaching classes	To be concluded by 09.09.2025

5. Procedure for written examination:

(i) The written examination will be conducted by Railway Recruitment Cell (RRC), Northern Railway through an Examination Conducting Agency to be provided by Railway Recruitment Board (RRB).

(ii) The written examination will be a Computer Based Test (CBT)/ Tablet Based Test (TBT) where there will be no physical question paper. All the questions will appear on the computer/ tablet and the employee will have to mark their responses/ answers to the questions on computer/tablet.

(iii) RRC/NR will be issuing a formal admit card online (through the website https://rrcnr.org) to each and every eligible and willing employee for appearing in the CBT/TBT. Examination Venue and time of reporting for the written examination will be there in the admit card. As no physical communication will be made after issue of this vacancy notice, it will be the responsibility of the concerned employees to regularly visit RRC/NR's website as well as this Division's website for an update and to download the admit card as and when made available by RRC. Further, no supplementary/absentee examination shall be conducted on this ground.

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- (iv) A link will also be made available on the above website (https://rrcnr.org) to the employees, explaining as to how the question will be appearing and how to mark the responses/ answers in the actual examination. Employees can practice through that link any number of times.
- (v) Both physical and biometric attendance will be marked at the examination venue.
- (vi) 100% questions will be objective type multiple choice questions.
- (vii) There will not be any negative marking.
- (viii) There shall be questions in Official Language Policy and Rules upto 10% of marks. However, it is not mandatory to attend the same.
- (ix) There will be 110 questions of objective multiple choice type with four answer options and the candidate has to answer a maximum of 100 questions. In case the candidate answers more than 100 questions, first 100 attempted questions are to be taken for evaluation.
- (x) The written examination will be of 02 (two) hours duration.
- (xi) There will be computerized evaluation.

6. Notifying to the employees:

- 6.1. The willing employees should submit their application (Hard copy) in the prescribed proforma enclosed (Annexure 1) duty filled in all respects on or before 14.08.2025 (due date) at Single Window Cell/Samadhaan portal of Delhi Division.
- 6.2. Applications (Hard copy) received in this office after the target date will be summarily rejected. The notification should be given wide publicity and employees who are on leave/sick leave should be notified of the selection.
- 6.3 The Senior Subordinate/ Supervisor concerned has to furnish a certificate that "the eligible employees have been duly notified of the holding of the written examination and asked to submit their applications duly giving their willingness. They have also been informed about availability of any further information on RRC/NR's website (https://rrcnr.org) regarding availability of admit card and link for demo test." Such certificates should be forwarded to Personnel Branch addressed to Sr. DPO/DLI. It will be the personal responsibility of the Senior Subordinate/ Supervisor to complete the formality in this respect. It is further advised that any other communication received in respect to the selection should invariably be intimated to all the eligible employees. In case of non-receipt of any communication the same may be obtained from the Personnel Department or from the Controlling Officer. Any laxity in this regard will be viewed seriously as it will adversely impact the above selection which is being conducted simultaneously for all Divisions/Units over Northern Railway. The unwillingness, if any, received from the employees is to be forwarded to Personnel branch addressed to Sr. DPO/DLI on or before 14.08.2025.

7. Supplementary Written Test:

A supplementary written examination will be held for those employees who have remained absent themselves in the main examination due the following circumstances with the approval of the competent authority. The candidates unable to attend the written examination due to administrative ground duly informed by the officer in charge/supervisors by written within stipulated period. Sickness of the candidates or other reasons on which the employee has no control. Unavoidable absence will not be included to attend be bonafide certificate issued from Railway Medical Authority.

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8. Tentative schedule for holding the selection:

Activity	Details of activity	Tentative date (mention specific date wherever confirmed)
number	PART-A	
1	Issue of notification along with main and stand-by	04.08.2025
2	eligibility list Submission of certificate by concerned department	14.08.2025
	along with list of unwilling employees	09.09.2025
3	Conducting pre-examination training PART-B	
		Е
4	Online issue of admit card & providing link for practice	(the day when the admit card will be issued)
5	Conduct of written examination	E+3
6	Uploading of model answer key and activating	E+4
7	objection tracker Objection tracker will be available upto	E+11
8	Uploading of final answer key	E+14
9	Availability of result of written examination from RRC/NR to the indenting units	E+16
10	Finalizing proceedings of Selection Board/ Committee at Divisional/Unit level	E+19
.11	Issue of panel	E+20

8. Websites to be visited regularly for any update:

RRC/NR's website: https://rrcnr.org

DLI Division website:- http://nr.indianrailways.gov.in→Division→Delhi→Personnel

DA: as above

(Rajni Kadyan)
Assistant Personnel Officer/Welfare,
for Divisional Railway Manager/P,
Delhi Division.

Circulation:

As per standard list

- 1. All CS&WLIs/Delhi Division: To handover a copy of this Notification to the employees appearing in Annexure-I & II under written acknowledgement
- 2. Ch. OS/OS, Confidential Cell, Delhi Division
- 3. Divisional Secretary/ NRMU, URMU, SCSTREA & OBCREA
- 4. Control Office, Delhi Division
- 5. RRC/NR's website (https://rrcnr.org)
- 6. Sr. PRO/ Delhi Division:- For uploading on website:-

 $http://nr.indian railways.gov.in \rightarrow Division \rightarrow Delhi \rightarrow Personnel$

LIST of staff eligible for selection to the post of JE/DSL/Elect. in Level-6 against 25% PQ DSL Mechanical Deptt. from Sr. Tech (MCM)/DSL-Elect., Level-6 (Annexure-I)

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	10 01 72	TKD	SC	Chunni Lal	Kishan Kumar kannojia	OZFOKO	50313603784	╀
	01.12.65	TKD	UR	Dhanni Yadav	Shiv Chand Yadav	PHWTBB	50302991380	+
	15.06.72	TKD	UR	Bhagat Singh	Ramesh Singh	FCEOWE	50302996480	+
	10.06.69	SSB	UR	Ganga Dutt	Girish Chand	FEIWFA	50302936300	+
	10.07.81	TKD	SC	Bhola	Ram Kishor	TOUGET	5030300300	15 1
	02.08.67	TKD	SC	Lahori	Sunii Kumar	VSOCRI	50313603401	1/2
	20.04.80	TKD	SC	Panna Lal	המאפטו	EBYTKY	50313603773	12
	03.03.79	TKD	UR	Attar Singh	Bakash CHAND	RESTIC	50313602883	12
	27.07.70	TKD	UR	Devinder.K.Sharma	SHIR NSHOLE SHALLING	XDNW/MW	50300722467	11
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	04 02 67	TKD	I IR	Lalit Rai	Arun Kumar	KCJNDZ	50302995876	000
	17.12.66	TKD	UR	Nokhe lal	Rajeev Kumar	JCRCMI	5030299565/	,
c	25.07.66	TKD	UR	Chandan Lal	Dev Vidhaya Priya	EJMSCF	50302988689	10
Retiring on 31.08.25	30.08.65	SSB	UR	Manphool	Pradeep	2001	E0303086660	,
	01.01.66	TKD	UR	J.P.Sharma	2 SIGN PULLAR	TINASI	50313617774	л
Retiring on 31.08.25	04.08.65	UMB	UR	naji sharique Ahmad	Ashak Kiimaa	- IKPOD	50302987855	4
	20.01.62	330	; ;	Haii Chafiana Aharad	Asheenije Ahmad	RQSUMB	50312420610	ω
	25 10 65	CCB		Balwant Singh	Dharamvir Singh	YRCUWQ	50302990234	2
	06.06.67	SSB	ST	Chotey Lal Meena	Ram Charan Meena	DHKHQ	50300/12462	,
Remarks	D.O.B.	Stn.	SC/ST	Father Name	Nalle		50000717467	1 6

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				Standby List (Annexure-II)	⋽			
S.No.	PF No.	HRMS ID	Name	Father Name	56/51	C+3	2	,
1	50302997368	ZRJLZZ	Manik Chand	Niranian Singh	- 10	311.	0.0.B.	Kemarks
2	50313603001	NINANIDAD	0	rangen Singn	CX	2	03.05.67	
_	TOGZOGCICOC	NIVINKAK	Subhash	Singa Ram	IJR	SSR	17 04 71	
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APPLICATION FOR THE POST OF Junior Engineer/DSL/Mech., IN PAY MATRIX LEVEL- (6) OF 7TH CPC PAY MATRIX (GP4200/- OF 6TH CPC) AGAINST 25% (PQ) IN DELHI DIVISION

	Name			
1.	Name:			
2.	Father's Name:			
3.	PF No.:			
4.	HRMS ID :			
5.	Mobile No:			,
6.	Email Id:			
7.	Designation :			
8.	Office :			
9.	Community (tick appropriate)			
	·		UR SC S	ST PWD
	(If SC/ST copy of attested communi	ty certificate s	should be attached	i)
10.	(If SC/ST copy of attested communication) Date of Birth	ty certificate s	should be attached	9)
		ty certificate s	should be attached	
11.	Date of Birth	ty certificate s	should be attached	
11.	Date of Birth Date of Appointment		should be attached	
11. 12. 13.	Date of Birth Date of Appointment Date of Regular Appointment		should be attached	
11. 12. 13. 14.	Date of Birth Date of Appointment Date of Regular Appointment Date of entry in present Grade/Post		should be attached	
11. 12. 13. 14.	Date of Birth Date of Appointment Date of Regular Appointment Date of entry in present Grade/Post Capacity of Appointment		should be attached	
11. 12. 13. 14. 15.	Date of Birth Date of Appointment Date of Regular Appointment Date of entry in present Grade/Post Capacity of Appointment Present Pay in Pay matrix Date of Total regular service in		should be attached	

(Copy of attested certificates should be attached)

Declaration

I hereby declare that all the particulars given in this application are true and correct to the best of my knowledge and belief. I am eligible for the selection as per eligibility criteria stipulated in the notification. I understand that in the event of particulars or information given herein being found false or incorrect at later stage. I am liable to be taken up under D&AR for major penalty apart from my application being rejected.

Date

Signature

Name

Place

Designation

Certified and forwarded to

Date

Signature of supervisory official

Name

Place

Designation

Northern Railway

No. 561-6/7th CPC/Pf. V- /2015/P-19Date: 07-2025

DRM Office, New Delhi

Category J/Delhi Division All Branch Officer/Delhi Division Sr Subordinate Incharges Delhi Division.

(NR PS NO. 1608 / 2510)

sub:- Syllahu of ventur examination for the fort of JE/ DEL/ Elect

Ref:- General Manager/P, N. Rly., Hd. Qtr Office, Baroda House, New Delhi, letter Number

752 -6/ Wesh Prhiy/ 8/10 dated 16/ 07/ 2025

In reference to above subject, the syllabus for selection for the post of Junior Engineer/DSL/Elect in Level-06 is enclosed herewith for your information and necessary action please.

Please acknowledge the receipts.

DA/as above

Abhijit Aubta

for Divisional Railway Manager/P

New Delhi

Copy for information & necessary action to:-

- 1. PA to DRM/Delhi
- 2. PA to all ADRMs
- 3. PA to Sr DPO/C, Sr DPO/II, Sr. DPO/III and all Personnel Officers & All Chief Office Supdt's/Personnel Delhi Division.
- 4. Divisional Secy/NRMU Delhi Division.
- 5. Divisional Secy/NRMU Delhi Division
- 6. Divisional Secy/SC-ST Association Delhi Division.
- 7. Divisional Secy/OBC Association Delhi Division.



NORTHERN RAILWAY (Personnel Department)

P.S. No. 16018/2025

Headquarters Office, Baroda House, New Delhi.

NO. 752-E/Mech Policy/EIIC

DATE: 16/07/2025

Divisional Railway Manager/NR: DLI, FZR, MB, UMB, LKO & JAT

Chief Workshop Manager/NR: AMV-LKO, CB-LKO, JUDW, ASR & RCNK-SNP,

CWM/Signal Shop, GZB.

CAO/C: K. Gate DLI & Satyam Complex, Trikuta Ngr/JAT.

MD/NRCH.

Chief Manager (Ptg. &Sty) Punjabi Bagh, Delhi

Dy.CMM: SSB, AMV-LKO & JUDW.

DY.CE/TMC/Line, State Entry Road, New Delhi.

Dy.CE/Bridge, CB-LKO, JUC & TKJ.

Sub:

Syllabus of written examination for the post of Junior Engineer/Dsl/Elect.

Ref:

(i) PCPO/NR's letter no. PCPO/Sel./2025 dated 15/05/2025.

(ii) Dy.CME/HQ's letter no. Confdl.Mech/Group C Selection/266 dated 14/07/2025.

In reference to above subject, the syllabus of written examination for the post of Junior Engineer/Dsl/Elect in Level-06, is enclosed herewith for your information and necessary action please.

The above PS.No. is available on the website given as under:-https://nr.indianrailways.gov.in

Please acknowledge the receipt

DA: As Above

(Udot Jhh) For General Mynager (P)

Copy to:

- 1. All PHODs and All Officers of Personnel Deptt., HQ Office, Baroda House, New Delhi.
- 2. Genl. Secy./NRMU, 12 Chelmsford Road, New Delhi.
- 3. Genl. Secy./ URMU, 166/2, P.K.Road, New Delhi.
- 4. Genl. Secy./AIOBC Rly Emp. Asso. 171/A3, Basant Lane, New Delhi.
- 5. Genl. Secy./ All India SC/ST Rly Emp. Asso. North Zone Office, Baroda House, New Delhi.
- 6. Genl. Secy./ NRPOA Room No.301, HQ Office, Baroda House, New Delhi.
- 7. Dy.CPO/IT, HQs Office, Baroda House, NDLS for uploading on the website.
- 8. Dy.CPO/R&P, HQs Office, Baroda House, NDLS being policy matter.

Northern Railway



HQ Office, Mechanical Branch

Syllabus for TQ/PQ examination for selection to the post of Junior Engineer DSL/Elect

Part 1: General Knowledge

- 1.1 Important National & International Events, Authors, Places & Personalities etc
- 1.2 Sports
- 1.3 "Who's Who"
- 1.4 Facts about Indian Railways & its Organization, Important events in Indian Railways
- 1.5 Current Affairs

Part-2: English

- 2.1 Antonyms and Synonyms
- 2.2 Idioms & Phrases
- 2.3 Tenses, Modals, Determiners, Prepositions
- 2.4 Active and Passive Voice
- 2.5 Direct and Indirect Speech
- 2.6 Unseen Passages

Part-3: Mathematics

- 3.1 Algebra
 - 3.1.1 Real Numbers
 - 3.1.2 Polynomials
 - 3.1.3 Pair of Linear Equations in Two Variables
 - 3.1.4 Quadratic Equations
- 3.2 Arithmetic
 - 3.2.1. Problems based on age, time, work, money, Profit and Loss, and Interest
- 3.3 Geometry
 - 3.3.1 Lines
 - 3.3.2 Triangles: Pythagoras' Theorem, Midpoint Theorem, Area, Congruence of Triangles, Angle Sum Property, Exterior Angle Property; Similar Figures, Similarity of Triangles
 - 3.3.3 Properties and area of Parallelogram
 - 3.3.4 Circles: Area and Perimeter of Circle, Angle Subtended by a Chord at a point, Perpendicular from the Centre to a Chord, Equal Chords and their distances from the Centre, Angle subtended by an Arc of a Circle, Cyclic Quadrilaterals, Tangent to a Circle, number of Tangents from a point on a Circle, Area of Sector and Segment of a Circle
 - 3.3.5 Surface Areas and Volumes of cuboid, cone, cylinder, and sphere; and **Combination of Solids**

3.4 Coordinate Geometry

- 3.4.1 Basics of the Cartesian system
- 3.4.2 Distance Formula



3.5 Introduction to Trigonometry

- 3.5.1 Trigonometric Ratios
- 3.5.2 Trigonometric Ratios of Specific Angles
- 3.5.3 Trigonometric Identities
- 3.5.4 Applications of Trigonometry: Heights and Distances

3.6 Statistics

- 3.6.1 Mean, Mode, Median of Grouped Data
- 3.6.1 Mean Deviation & Standard Deviation

Part-4: General Science

- 4.1 Matter in Our Surroundings: Physical Nature of Matter, Characteristics of Particles of Matter, States of Matter, Mixture, Solution, Concentration of a Solution, Compound
- 4.2 Atoms, Molecules and Chemical Reactions, Structure of the Atom, Valency, Atomic Number, Mass Number, Isotopes, Isobars, Laws of Chemical Combination, Chemical Equations, Types of Chemical Reactions, Oxidation and Reduction, Acids, Bases and Salts, Name of salts and compounds, Types of Oxides, Properties and Laboratory Preparation of Oxygen, Hydrogen, and Nitrogen
- 4.3 Metals and Non-metals (Physical Properties, Chemical Properties), Ores of Metals, Corrosion and its prevention
- 4.4 Carbon and Its Compounds: Bonding in Carbon, Versatile Nature of Carbon, Chemical Properties of Carbon Compounds, Important Carbon Compounds Ethanol and Ethanoic Acid, Soaps and Detergents
- 4.5 Force and Laws of Motion: Motion Along a Straight Line, Uniform Motion and Non-Uniform Motion, Speed with Direction, Acceleration, Equations of Motion, Uniform Circular Motion, Balanced and Unbalanced Forces, Laws of Motion, Inertia and Mass
- 4.6 Gravitation: Universal Law of Gravitation, Free Fall, Mass & Weight, Thrust and Pressure, Buoyancy, Archimedes' Principle
- 4.7 Work and Energy: Scientific Conception of Work, Forms of Energy, Potential Energy, Potential Energy of an Object at a Height, Law of Conservation of Energy, Power, Method of Heat Transfer
- 4.8 Sound: Propagation of Sound, Characteristics of a Sound Wave, Reflection of Sound, Echo, Reverberation, Range of Hearing, Applications of Ultrasound
- 4.9 Light: Reflection and Refraction, Spherical Mirrors, Sign Convention for Reflection by Spherical Mirrors, Refractive Index, Refraction through a Rectangular Glass Slab & prism, Atmospheric Refraction, Refraction by Spherical Lenses, Image Formation by Lenses, The Human Eye, Dispersion of White Light by a Glass Prism
- 4.10Electricity: Electric Current and Circuit, Electric Potential and Potential Difference, Symbols of some commonly used components in circuit diagrams, Ohm's Law, Factors affecting the Resistance, Resistance of a System of Resistors, Heating Effect of Electric Current, Electric Power, Domestic Electric Circuits
- 4.11 Magnetic Effects of Electric Current: Magnetic Field and Field Lines, Magnetic Field due to a Current-Carrying Conductor, Force on a Current-Carrying Conductor in a Magnetic Field

Part-5: Establishment Rules

- 5.1 Pass Rules
- 5.2 Leave Rules
- 5.3 Payment of Wages Act
- 5.4 Hours of Employment Regulations
- 5.5 D&AR (Disciplinary & Appeal Rules)
- 5.6 Workmen's Compensation Act
- 5.7 Factory Act
- 5.8 Basic Knowledge about HRMS, RESS, HIMS, NPS/UPS, and UMID web portals/App

art-6 Stores

- 6.1 System of receiving and issuing goods from the store, local purchase, and inventory
- 6.2 Stock and Non-Stock Items, PL Number
- 6.3 Basic Knowledge about UDM, GEM, IMMS, IREPS

Part-7 राजभाषा

- 7.1 संघ की राजभाषा नीति का सामान्य परिचय
- 7.2 राजभाषा अधिनयम 1963
- 7.3 राजभाषा संशोधन नियम 1976
- 7.4 राजभाषा संकल्प 1968
- 7.5 राजभाषा से संबन्धित वार्षिक पाठ्यक्रम एवं प्रचलित शब्दावली

Part-8 Professional Knowledge

- 8.1 ALCO Locomotive
 - 8.1.1 Design and construction of ALCO Locomotive
 - 8.1.2 Basic knowledge of Battery charging and cranking system
 - 8.1.3 Basic idea of electrical control system of ALCO loco
 - 8.1.4 Basic knowledge of power transmission system
 - 8.1.5 Relays and power contactors of ALCO Locomotive
 - 8.1.6 Electrical Sub assembly of ALCO locomotive: Traction Alternator, Traction Motor, Auxiliary Generator, Exciter, Rectifier, Radiator Fan Motor, Dynamic Brake Fan Motor, Fuel Pump Motor, Dust Bin Blower Motor
 - 8.1.7 Maintenance and overhauling of electrical equipment
 - 8.1.8 Basic idea of REMMLOT
 - 8.1.9 Testing of Engines: Load Box testing, self load, ETS test
 - 8.1.10 Idea of maintenance schedules T1, M1-M2 M12, M18, M24 & M72

8.2 HHP Locomotive

- 8.2.1 Basic knowledge of Electric equipment in GM locos
- 8.2.2 Basic knowledge of Electric control system
- 8.2.3 Starting circuit and components
- 8.2.4 Running maintenance of Electric rotating machines and rectifiers
- 8.2.5 Overhauling of Electric rotating machines
- 8.2.6 Basic knowledge of Power transmission in GM loco
- 8.2.7 Working of VCD, Auto flasher light and sanding system
- 8.2.8 Various types of GM Locomotives: WDG4, WDP4, WDP4D
- 8.2.9 Testing of Loco: Load box test, self load, Auto test
- 8.2.10 Various schedule: 30 Days, 90 Days, 180 Days, Yearly, 3 yearly and 6 yearly

8.3 Electric Locomotive

- 8.3.1 Basic knowledge of General construction of Electric Locomotive
- 8.3.2 Basic knowledge of Traction equipment: Bridge rectifier block, Traction motor, Smoothing reactor
- 8.3.3 Safety relays and their working
- 8.3.4 Running maintenance of all rotating machines and static devices.
- 8.3.5 Basic knowledge of Auxiliary electric machines: MVMT, MVSI, MVRH, MVSI, MCP, MCPA and MPH

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- 8.3.6 Overhauling of all electric equipment
- 8.3.7 Testing of VCD, Sanding and Auto flasher
- 8.3.8 Testing of Locomotive: Tripping via different faults, Notch progression and regression
- 8.3.9 Various maintenance schedules: IA, IB, IC and TOH

8.4 T-18 (Vande Bharat)

- 8.4.1 Basic Knowledge of T-18, Formation of T-18
- 8.4.2 Basic knowledge various equipment fitted in different coaches
- 8.4.3 Safety and passenger amenity items
- 8.4.4 Circuit Breakers and Electrical Systems
- 8.4.5 Traction System and Motors
- 8.4.6 Main transformer and Auxiliary Systems
- 8.4.7 HVAC and Comfort Systems
- 8.4.8 Emergency Systems and Communication Safety & security items like CCTV, Public Information System (PIS)
- 8.4.9 Various maintenance schedule: Trip, Monthly, Quarterly and 9 Monthly

8.5 **DEMU**

- 8.5.1 Configuration of DEMU trains
- 8.5.2 Electrical control system of driving power car
- 8.5.3 Basic knowledge of Rectifier, Relays, Power contactors and Battery box
- 8.5.4 Passenger Amenities & safety items
- 8.5.5 Maintenance checks of DPC: A check, B check, C check and D check

8.6 MEMU/EMU

- 8.6.1 Basic knowledge of working of EMU/MEMU trains
- 8.6.2 Basic configuration of EMU/MEMU trains
- 8.6.3 Battery charging and Auxiliary system.
- 8.6.4 Passenger Amenities & safety items
- 8.6.5 Various maintenance schedules: IA and IC

8.7 General

- 8.7.1 Basic knowledge of Voltage, Current, Resistance and Electrical Power
- 8.7.2 Various type of Batteries used in different locomotive and its charging
- 8.7.3 Industrial Safety, Fire Safety, Housekeeping and First Aid
- 8.7.4 Basic knowledge & advantages of CNC machines and their major applications
- 8.7.5 Basic knowledge of e-office and SLAM portal
- 8.7.6 Basic knowledge of computers: MS Word, MS Excel, MS PowerPoint, working of computers and peripherals
- 8.7.7 Knowledge of the Time office, Progress, Procedure for the Gate Pass etc
- 8.7.8 Procedure of Ferrous and Non-Ferrous scrap disposal
- 8.7.9 Knowledge of hazardous work and its disposal
- 8.7.10 Procedure of condemnation of various rolling stock
 - 8.7.11 Duties, responsibilities, and role of Junior Engineer: To motivate the staff working under him for punctuality, developing a positive attitude and increasing production