Northern Railway (FIROZPUR DIVISION)

No.755-E/81/JE DSL Mech/PQ/P-2

Date. 04.08.2025

Subject: - Selection for promotion to the post of Junior Engineer/DSL Mech in Pay Level-6 of 7°CPC against 25% PQ in Mechanical department of FZR Division.

1. It has been decided to hold a selection for filling up 07 vacancies for the post of Junior Engineer/DSL Mech in Pay Level-6 of 7 CPC against 25% PQ in Mechanical department of FZR 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)
4.					
	05	01	01	07	Nil

- 2. Eligibility and Service conditions:
- (i) The list of senior most eligible staff working as Sr. Tech/JE DSL Mech of Mechanical department of Ferozepur division in Pay Level- 6 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 and forwarded to this office on or before 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. 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://rrenr.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.

(iv) A link will also be made available on the above website (https://rrenr.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.
- (vi) There will not be any negative marking.
- (viii) There will not be any negative interesting (viii) There shall be questions in Official Language Policy and Rules up to 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, the first 100 attempted questions are to be taken for evaluation.
- (x) The written examination will be of 02 (two) hours duration.



5. Notifying to the employees:

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://rrenr.org) regarding availability of admit card and link for demo test." Such certificates should be forwarded to the Personnel Branch addressed to Sr. DPO/FZR. 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 the Personnel branch addressed to Sr. DPO/FZR on or before 12.08.2025.

6. Tentative schedule for holding the selection:

Activity number	Details of activity	Tentative date								
	PART- A									
1.	Issue of notification along with main and stand-by eligibility list	04.08.2025								
2.	Submission of certificate by Mechanical department along with list of unwilling employees as per Annexure-I & Annexure-II	12.08.2025								
3.	Conducting pre-examination training	Required								

Websites to be visited regularly for any update:

RRC/NR's website:

https://rrenr.org

Firozpur Division/Unit's website:

Note: 1. If any of the above instructions were modified/alerted at a later date by the Railway Board or Headquarters, the administration reserves the right to amend the above notified instructions to the extent to give the effect of the same.

2. As per GM/P/LNDL Letter No 807-E/Surrender of Post/MPP-2017/II, dated: - 19.06.2025, all the promotion of FZR Division and JAT division jurisdiction should be done by FZR division. Hence this selection to be conducted for FZR & JAT division both and after empanelment employees may be posted anywhere at FZR & JAT division as per administrative requirement.

> For Sr.Divisional ersonnel Officer N.Rly/Firozpur

Copy forwarded for information and necessary action to:

- 1. Sr. DME/DSL/LDH of FZR & J&K Divin.,
- 2. All SSE/G/DSL/DMU/Shed of FZR Division and J&K Division &
- 3. WLIs/Firozpur Division: To hand over a copy of this notification to the employees appearing in Annexure-I & II under written acknowledgment
- 2. Ch.OS/OS, Confidential cell, Firozpur Division
- 3. Divl. Secy./NRMU/URMU, SCSTREA & OBCREA of FZR Division
- 4. Control Office, Firozpur Division
- 5. RRC/NR's website (https://rrcnr.org)

NO.	IRMS	Empl. PF NO	Name/Sh.	F/Name/Sh	SC/ ST	STN	DOB DOB	DOA					
	d								04 00 00	19 12 05	19.12.05	01.09.16	_
	HODBD	50300071930		Bhajoria Meena	ST	LDH	11		10 11 1		l	l	
- 1					O.T.	LDH	10.06.74	06 01 94	01.09.98	19.12.03	19.12.05	01.08.10	^
	ASIMJ	50300071900	Subhash Chand Meena	Heera Lal Meena	ST	LDN			l .	l	03.12.08		
		50300071379	Raj Kumar	Jagdish	UR	PTK	13.04.66	20.12.89	01,08,90	01.11.00			Retire this month
- 1	LUCZZZ	30300071375	(ta) (tall	Chander				22.05.85	24 06 92	01.11.03	03.12.08	01.09.16	31.08.2025
-	DLZAPB	50300070327	Som Nath	Ram Lalan	UR	LDH	1					06.12.17	
				=	UR	LDH	04.11.70	19.05.92	01.01.93	01.11.03	03.12.00		
	EFTQFM	50300071794	Gian Singh	Balbir	UK	12011				04 11 03	16.03.09	06.12.17	
			Mahiadas	Singh Chhaju	sc	PTK	01.02.67	16.02.87	15.07.94	01.11.03	l .		
	HTSBPL	50300070673	Mohinder Paul	Ram	30				28.07.94	01 11.03	16.03.09	06.12.17	
			Om	Ram Dass	SC	JUC	02.12.66	12.02.87	28.07.84	01.11.			
	ATMOFR	50300070715	Parkash	Ttain Bass				00 02 03	01 04.96	01.11.03	27.11.09	06.12.17	V.
		50300071989	Bishan	Ram	UR	LDH	16.09.74	30,03.93	01.0			06 12 17	
	EUQSOH	30300071303	Dass	Ashrey			04.40.74	12.06.93	03.04.96	01.11.03	27.11.09	00.12	
	NKUJQQ	50300071997	Baldev Raj	Hans Raj	UR	LDH	01.10.74	12.00.00		11.00	15.06.10	12.02.18	
)	MKOJGG	00000				1.011	22.02.66	12.02.87	01.09.98	01.11.03	15.00.10		
0	JHLKOB	50300070705	Mohinder	Nomi Pd	UR	LDH	22,02.00			01 11 03	15.06.10	12.02.18	
0	Jinekou		Pal		UR	LDH	04.04.66	12.02.87	01.09.98	01.11.03	10.00		
11	KCTXCJ	50300070714	Inderjit	Mulkh Raj	IOR .	1000			24.00.00	01 11 03	15.06.10	12.02.18	
			Khanna	Gurnam	UR	LDH	13.10.66	12.02.87	01.09.90	0		1	
12	UYCOJF	50300070716	Gurwinderji Singh	Singh	1			1				12 02 18	
	1	1	Sirigit	Cirrigi.				01 02 87	01.09.98	01.11.03	15.06.10	12.02.10	
	WLKSXM	50300070713	Rachhpal	Chaman	UR	LDH	08.12.66		1	1	1	1	
13	WLKSAM	30300070710	Chand	Lal						21 44 03	15.06.10	12.02.18	
					1.10	LDH	03.08.67	02.07.87	01.09.98	01.11.03	15.06.10		
14	BNCURZ	50300070795	Pardeep	Des Raj	UR	LUN				01.11.03	15.06.10	28.01.19	
			kumar	Harnand	sc	LDH	23.02.66	03.06.88	01.09.98	01,11,.00	1	100	
15	EABWSP	50300071008	Satpal	Singh	155			07.06.00	01.09.98	01.11.03	15.06.10	28.01.19	'
		50000071000	Singh Kulwinder	Major Sing	n SC	LDH	01.12.68	07.06.88					
16	ENPXOL	50300071026	Cinch				02.04.67	19.09.88	01.09.98	01.11.03	22.11.11	20.01.15	
	POLICIT	50300071062	Malkit Sing	h Nathu Ran	1 SC	LDH	02.04.67			1	02 11 11	28.01.19	
17	OCADPT	3030007 1002		1000		JUC	15.05.68	30.08.89	01.09.98	01.11.03	22.11.11	20.0	
40	DWPZPI	50300071197	Malkiat	Teja Singh	sc	1300	1000			02 12 09	01.11.13	30.06.22	2
18	DWFZFI		Singh		- lec	JUC	27.05.66	11.09.86	20.02.96	23.12.00	3,,,,,,		
19	XZCKMN	50300072207	Ravinder	Harjit Sing	1130	1500		1					
15	,	,	Pal Singh					05.00.04	15 02 06	01.04.08	18.06.10	28.01.19	9
			Harinder	Sukhu	ST	LDH	10.03.71	05.02.91	15.02.00			1	-
20	ENFSII	50300072059	Singh	Singh			21.08.85	20 01 04	21.01.07	02.07.10	24.06.13	28.01.19	'
	1	50307030466	Vipin Kum		ST	PTK	21.08.83	, 20.01.04	1.00				

						+ mact	Sonior	employ	ees of	Sr. Teci	I) D3L/	IVIECTI	
		Annexure	-II (As p	er Senior	ity nex	PIK	27.01.69	06.07.87	07.07.2K	01.11.03	22.11.11	28.01.19	
	UKOJZJ	50300070803	Navtej Singh	Singh	UR	LDH	22.02.66	l .			24.08.12	28.01.19	
_	JDLKYW	50300070848	Raghbir Singh	Ajit singh			08.07.66	09.07.87	01.09.98	14.02.06	24.08.12	28.01.19	
_	ENAHDS	50300070804	Gurnam Singh	Karam Singh	UR	PTK		7,000	01.09.98	14.02.06	24.06.13	28.01.19	
	ICNPLX	50300070808	Mukhtiar	Jiwan	UR	LDH	13.02.67	0010111		14.02.06			
		50300070799	Singh Narinder	Singh Balwant	UR	PTK	24.04.68	00.0.	01.09.98				Retire this month
	AJRHJY		Singh Prem Pal	Singh	UR	LDH	05.08.65	14.11.87	01.09.98	08.08.07	20.08.13	23.09.19	31.08.2025
	MFGOJR	50300070876	Singh	Singh								23.09.19	
		7000070077	Naginder	Vashist	UR	LDH	12.12.65	19.11.87	01.09.98				
	AZOSNQ	50300070877	Nath	Narayan Om	UR	LDH	31.03.68	08.01.88	01.09.98	08.08.07	01.11.13	23.09.19	
_	XONQLD	50300070909	Tarsem Kumar	Prakash		JUC	12.12.65	28.04.88	01.09.98	08.08.07	01.11.13	23.09.19	
_	FGNJDZ	50300070941	Tejinder Singh	Rattan Singh	UR			23.05.88	01 09 98	08.08.07	01.11.13	23.09.19	
-	BZJPOA	50300070936	Jaswinder	Kartar Singh	UR	LDH		1	<u> </u>				
1	GIXDPE	50300071015	Singh Ajit Singh		UR	LDH	21.05.68	04.06.88			1	09.10.19	
_	JDEBQX	50300071016	Harmeet	Gurmail	UR	LDH	26.02.69	04.06.88	01.09.98				
2			Singh Harjinder	Singh Gurdas	UR	LDH	15.04.66	07.06.88	01.09.98	14.08.08		01.10.20	
3	OITEXY	50300071024	Singh	Singh		LDH	13.03.67	06 06 88	01.09.98	14.08.08		01.10.20	
4	LGFZDW	50300071020	Kesharjit Singh	Ajaib Singh	UR				01.09.98	23.12.08		01.10.20	
5	ZYRIJJ	50300071065	Manjit Singh	Rajinder Pal	UR	LDH	25.05.66				01.11.13	01.10.20	
в	LDYOYM	50300071099	Palwinder	Naranjan	UR	LDH	31.05.67	25.10.88	01.09.98			17.03.23	
77	HHLYCF	50300072324	Singh	Singh	SC	JUC	04.10.79	19.06.99	24.09.02	23.12.08	01,11.13	29.05.22	
7			Singh	Singh			06.09.69		31.07.03	23.12.08	01.11.13	20.00.22	
18	GRMRYP	50300072024	Balwinder Singh	Ajit Singh	SC	LDH		-		23.12.08	20.03.15	17.03.23	
19	CGPUSU	50300071329	Radesh Kumar	Rattan Lai	SC	nc	31.03.70	18.01.90					



applicable for all p. Th.

7e, 35

cting Apen Conducted



NORTHERN RAILWAY (Personnel Department)

P.S. No. 16017/2025

Headquarters Office, Baroda House, New Delhi.

DATE: 16/07/2025

NO. 752-E/Mech Policy/EIIC

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.

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.

Syllabus of written examination for the post of Junior Engineer/Dsl/Mech. Sub:

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

(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/Mech in Level-06, is enclosed herewith for your information and necessary action

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 ha) For General Manager (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

Mechanical Branch

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

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
 - 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
 - 4.10 Electricity: 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

- 6.1 System of receiving and issuing goods from the store, local purchase, and inventory control
- 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 Diesel engine of ALCO Locomotive
 - 8.1.2 Tri mounted fabricated bogie and all its components
 - 8.1.3 Basic Systems: Fuel oil, Lube oil, Water cooling system and their components
 - 8.1.4 Turbo supercharging in ALCO Locomotive
 - 8.1.5 Testing: Load box test, self load, Auto test, Dry run test, ETS
 - 8.1.6 IRAB brake system, sanding system
 - 8.1.7 Basic design and features of CBC and its components
 - 8.1.8 Various schedule maintenance: T1, T2, M1, M2, M6, M18, M24, M72

8.2 HHP Locomotive

- 8.2.1 Various types and features and nomenclature of GM locomotives
- 8.2.2 Design and construction of Engine block-used in GM Locomotives
- 8.2.3 Basic knowledge of Design, Features and maintenance of HTSC bogie
- 8.2.4 Basic Systems of GM loco: Fuel oil Lubé oil and water cooling system
- 8.2.5 Design and overhauling of Cylinder liner, cylinder head and valve mechanism
- 8.2.6 Design and features of CBC and its components
- 8.2.7 Under gear components and their maintenance in GM Locomotives
- 8.2.8 CCB brake system and its components
- 8.2.9 Various schedules: 30 Days, 90 Days, 180 Days, Yearly 3 yearly and 6 yearly

8.3 Electric Locomotive

- 8.3.1 Design and construction of Electric Locomotive
- 8.3.2 Bogie used in electric locomotive and its components
- 8.3.3 Design, construction and maintenance of Pantograph
- 8.3.4 Design, construction and maintenance of Transformer and its auxiliaries
- 8.3.5 Design, working and maintenance of Tap changer
- 8.3.6 Under gear maintenance of electric locomotive
- 8.3.7 CBC and its components
- 8.3.8 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 Bogie used in T-18 & its components
- 8.4.3 Pantograph System Maintenance
- 8.4.4 Main transformer and Auxiliary Systems
- 8.4.5 Brake Systems and its components
- 8.4.6 Basic idea of equipment fitted in different coaches of Train-18
- 8.4.7 Fire and Smoke Detection System (FSDS), Fire Detection and Suppression System (FDSS), VESDA
- 8.4.8 Wheels and Axles
- 8.4.9 Various schedule checks of Train-18: Trip, Monthly, Quarterly and 9 monthly

8.5 **DEMU**

- 8.5.1 Configuration of DEMU
- 8.5.2 Bogie used in DEMU
- 8.5.3 Design and construction of diesel engine of Driving Power Car
- 8.5.4 Passenger Amenities & safety items
- 8.5.5 Basic knowledge of various under frame equipment of Driving Power Car
- 8.5.6 Various schedule checks of DPC: A check, B check, C check and D check

8.6 MEMU/EMU

- 8.6.1 Basic idea of configuration and purpose of EMU/MEMU trains
- 8.6.2 Basic knowledge of bogie, coupler and other under frame equipment
- 8.6.3 Passenger Amenities & safety items
- 8.6.4 Basic idea of schedule maintenance IA and IC of EMU/MEMU

8.7 General

- 8.7.1 Types of bolts and nuts: Lock bolts, Hex bolts, Carriage bolts and Eye bolts
- 8.7.2 Common Nut types including hex nuts, lock nuts and wing nuts
- 8.7.3 Different types of Rivets: Snap head and Counter sunk
- 8.7.4 Basic knowledge & advantages of CNC machines and their major applications
- 8.7.5 Industrial safety, Fire safety, Housekeeping and First Aid
- 8.7.6 Knowledge of the Time office, Progress, Procedure for the Gate Pass etc.
- 8.7.7 Basic knowledge of computers (MS Word, MS Excel, MS PowerPoint, working of computers and applications)
- 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 locomotives
- 8.7.11 Basic knowledge of e-Office and SLAM portal
- 8.7.12 Duties, responsibilities, and role of Junior Engineer: To motivate the staff working under him for punctuality, developing a positive attitude and increasing production