



कार्यालय / Office
कार्मिक विभाग, रायपुर मंडल / Deptt.of Personnel, Raipur Division
दक्षिण पूर्व मध्य रेलवे / South East Central Railway

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क./No. - E/PB/R/CDR-II/2023

दिनांक / Dated: 23-09- 2024

अधिसूचना सं.-113 / 2024
Notification No. 113 /2024

विषय: -रायपुर मंडल के अभियांत्रिकी विभाग के कनिष्ठ अभियंता(रेलपथ) लेवल-6 के पद को भरने के लिए पैनल का गठन।

Sub: Formation of panel for filling up the post of JE(P.WAY) in Pay Matrix Level-6 of Engineering Department of Raipur Division/ SECR.

रायपुर मंडल के अभियांत्रिकी विभाग के कनिष्ठ अभियंता (रेलपथ) लेवल-6 के 06 रिक्त पदों (एस सी -00, एसटी-00 और यूआर-06) की 20 प्रतिशत विभागीय पदोन्नति कोटा के अंतर्गत पदोन्नति के लिए वरिष्ठता सह उपयुक्तता आयोजित करने का प्रस्ताव है। उपरोक्त पद की पदोन्नति के लिए अनंतिम पात्रता सूची निम्नांकित है। It is proposed to form a panel through seniority cum suitability for filling up of 06 (Six)) posts (SC-00,ST-00 & UR-06) of JE(P.WAY) in Pay Matrix Level-6 against 20% DPQ in Engineering department of Raipur Division/SECR. The break-up of vacancies is as under:

समुदाय / Community	अना/.UR	अजा/.SC	अजजा/.ST	कुल/Total
रिक्तियों की संख्या /No. of vacancies	06	00	00	06

1. **कर्मचारियों की पात्रता और सेवा शर्तें : ELIGIBILITY AND SERVICE CONDITIONS OF STAFF :**

- 1.1 कर्मचारियों की शैक्षणिक योग्यता 10वीं पास अथवा ITI तथा ट्रैकमेंटर ग्रेड- I लेवल -5 में दो वर्ष पूर्ण कर चुका हो, वे ही कर्मचारी वरिष्ठता के आधार पर कनिष्ठ अभियंता(रेलपथ) लेवल- 6 ही योग्यता जाँच (लिखित परीक्षा) के लिए पात्र होंगे।

Employees must have educational qualification of 10th pass or ITI and have completed two years of Track Maintainer Grade-I in Level-5. are eligible for the suitability test through written examination of JE (P.WAY) Level-6 on seniority basis.

(Authority: PCPO/SECR/BSP's Estt.Srl No. 273/2005, 204/2014, 359/2018 एवं प्र.मु.का.अधि.के पत्र संख्या - P-HQ/RUL/105/3/E6969 दिनांक 23/08/2017)

- 1.2 कनिष्ठ अभियंता(रेलपथ) पद संरक्षा श्रेणी के अंतर्गत आने के कारण अनुसूचित जाति/अनुसूचित जनजाति समुदाय के उम्मीदवारों के लिए कोई छुट की अनुमति नहीं है। लिखित परीक्षा में 60% अंक प्राप्त करना अनिवार्य है।

Since the post of Junior Engineer (P.WAY) comes under Safety Category, no relaxation in passing marks is allowed to the candidates belonging to Scheduled caste/Scheduled Tribe . It is mandatory to obtain 60% marks in the written examination.

(Authority: PCPO/SECR/BSP's Estt.Srl No. 266/1999)

- 1.3 अनिवार्य पदोन्नति प्रशिक्षण में उत्तीर्ण सफल उम्मीदवारों को ही कनिष्ठ अभियंता (रेलपथ) के पद पर पदोन्नति किया जाएगा। Only successful candidates who have passed the mandatory promotion training will be promoted to the post of JE (P.WAY) in PML-6

2. उपयुक्तता हेतु प्रक्रिया /PROCEDURE FOR SUITABILITY:

- 2.1 वरिष्ठतम इच्छुक पात्र कर्मचारियों को विभागीय कोटे के अंतर्गत 1:1 के आधार पर कनिष्ठ अभियंता (रेलपथ) के पद के लिए लिखित परीक्षा के लिए बुलाया जाना है। Senior most willing eligible employees are to be called for written examination for the post of Junior Engineer (P-Way) against departmental quota on 1:1 basis.
- 2.2 लिखित परीक्षा का पाठ्यक्रम (syllabus) संलग्न है। लिखित परीक्षा के सभी प्रश्न राजभाषा सहित बहुविकल्पीय (द्विभाषीय) होंगे। लिखित परीक्षा कम्प्यूटर आधारित (CBT) होंगी। किन्हीं 100 प्रश्नों के उत्तर दें, 10 प्रश्न (वैकल्पिक) राजभाषा पर होंगे। गलत उत्तरों के लिए नकारात्मक अंक नहीं है। सभी प्रश्नों पर समान अंक है। लिखित परीक्षा की तिथि बाद में निर्धारित कर सूचित किया जाएगा। The syllabus of the written examination is attached. All questions in the written examination will be multiple choice (bilingual) including the official language. Written examination will be Computer Based Test (CBT). Answer any 100 of the questions, 10 questions (optional) will be on Rajbhasha. There is no negative marking for incorrect answers. All questions carry equal marks. The date of written examination will be determined and informed later.
- 2.3 अनुसूचित जाति/ अनुसूचित जनजाति की रक्ति नहीं होने के कारण के वरिष्ठता के अनुसार अनुसूचित जाति/ अनुसूचित जनजाति के उम्मीदवारों को पदोन्नति पूर्व प्रशिक्षण देना अनिवार्य नहीं है। It is not mandatory to give pre-promotion training to SC/ST candidates as per their seniority due to non-availability of SC/ST vacancies. (प्र.मु.का.अधि.के पत्र संख्या – P-HQ/RUL/105/2 दिनांक 17/07/2023)
- 2.4 कनिष्ठ अभियंता (रेलपथ) पद संरक्षा श्रेणी का होने के कारण लिखित परीक्षा में सफल उम्मीदवारों को चिकित्सा श्रेणी (Medical classification) A3 पास होना अनिवार्य है तथा पैनल में सफल उम्मीदवारों को पदोन्नति/पदस्थापित करने के पहले प्रमोशन कोर्स ट्रेनिंग सफलता पूर्वक पूर्ण करना है। As the post of JE (P.WAY) belongs to Safety category, it is mandatory for the candidates successful in the written examination to pass the Medical classification A3 and the candidates successful in the panel have to successfully complete the Promotion Course Training before promotion/posting.
- 2.5 हिंदी और अंग्रेजी संस्करणों में विसंगति/वैमेल के मामले में, अंग्रेजी संस्करण ही सही माना जाएगा। In case of discrepancy/mismatch in Hindi and English versions. English version will stand good.
- 2.6 मोबाइल फोन, कैलकुलेटर या किसी इलेक्ट्रॉनिक गैजेट के उपयोग की अनुमति नहीं है। परीक्षा शुरू होने के बाद इनमे से कोई भी पाए जाने पर उम्मीदवारों की उम्मीदवारी रद्द कर दी जाएगी। Use of mobile phone calculator or any electronic gadget is not allowed. Candidates candidature will be cancelled if found any of these after commencement of examination.

3. आरक्षण का प्रावधान / Provision of reservation:

- 3.1 माननीय/सर्वोच्च न्यायालय द्वारा निर्धारित शर्तों का अनुपालन निम्नानुसार किया गया है।
The eligibility is provisional subject to final outcome of pending SLPs in the Hon'ble Supreme Court w.r.t reservation in promotion as per PCPO/SECR's Estt.Rule No.94/2024.
- 3.2 स्थापना नियम संख्या 168/2022 के अनुसार कनिष्ठ अभियंता (रेलपथ) पद PwBDs श्रेणी हेतु आरक्षित नहीं है। As per Establishment Rules No. 168/2022, the post of JE(P.WAY) is not reserved for PwBDs category

4. योग्य उम्मीदवारों की सूची/List of Eligible candidates:-

- 4.1 अनुलग्नक – A (Main List) में 06 पदों के लिए कुल 06 पात्र कर्मचारियों का नाम है। Annexure – A (Main List) contains the names of total 06 eligible employees for 06 posts.
- 4.2 अनुलग्नक – B (Stand by) में कुल 24 पात्र कर्मचारियों का नाम है। Annexure – B (Stand by) contains the names of total 24 eligible employees.
- 4.3 अनुलग्नक – C में अपात्र कर्मचारियों का नाम है। Annexure – C contains the names of ineligible employees.

संलग्न पात्र सूची एवं प्रतीक्षा सूची में दर्ज योग्य उम्मीदवार दिये गये प्रारूप (Annexure-D) में अपनी इच्छा/अनिच्छा सहित पूर्ण रूप से भरकर उचित माध्यम द्वारा इस कार्यालय में दिनांक 30/09/2024 या इससे पूर्व प्रस्तुत करें। वरिष्ठतम इच्छुक छै पात्र कर्मचारियों को लिखित परीक्षा के लिए बुलाया। Eligible candidates from Main list and stand by list should fill in the given format (Annexure- D) completely along with Willingness/Unwillingness and submit it to this office on or before 30/09/2024 through proper channel. Senior most six willing eligible employees will be called for written examination (CBT) against these posts.

4.4 रायपुर मंडल के अभियांत्रिकी विभाग के नियंत्रण अधिकारी/पर्यवेक्षक सभी पात्र कर्मचारियों में अधिसूचना का व्यापक प्रचार करेंगे तथा अधिसूचना को सहजदृश्य स्थान पर प्रदर्शित की जानी चाहिए। इस संबंध में औपचारिकता पूरी करने की जिम्मेदारी वरिष्ठ अधीनस्थ/पर्यवेक्षक की होगी। The Controlling Officer/Supervisor of Engineering Department of Raipur Division will widely publicity the notification among all concerned employees and the notification should be displayed at a prominent place. The responsibility of completing the formalities in this regard will be of the senior subordinate/supervisor respective unit.

5. अभ्यावेदन/आपत्ति प्रस्तुत करने की अंतिम तिथि) यदि कोई हो / (LAST DATE FOR SUBMISSION OF REPRESENTATION/OBJECTION (IF ANY):

इस अधिसूचना के विरुद्ध कोई अभ्यावेदन/आपत्ति, यदि कोई हो, इस अधिसूचना के जारी होने की तिथि से 7 दिनों के भीतर इस कार्यालय में प्रस्तुत की जा सकती है, अन्यथा यह माना जाएगा कि पात्रता सूची के विरुद्ध कोई अभ्यावेदन नहीं है और सिविल इंजीनियरिंग विभाग में वेतन मैट्रिक्स लेवल-6 में कनिष्ठ अभियंता (रेलपथ) के पद पर पदोन्नति के लिए संबंधित कर्मचारियों की अंतिम उपयुक्तता के लिए मामले पर तदनुसार कार्रवाई की जाएगी।

Representation/objection against this notification if any, may be submitted to this office within 7 days from the date of issue of this notification, failing which it will be presumed that there is no representation against the eligibility list and the case will be processed accordingly for final suitability of the concerned employees for promotion to the post of JE (P.WAY) in Pay Matrix Level-6 in the Civil Engineering Department.

Digitally Signed by

सहायक कार्यालय अधिकारी Sinha

कृते, मंडल कार्मिक अधिकारी (प्रभारी) Date: 23-09-2024 18:19:47

Reason: Approved

प्रतिलिपि /Copy to: वमअभिरायपुर/ समन्वय., डीसी / एसईसीआरएमसी / रायपुर, डीएस / एआईएससी-एसटीआईए / रायपुर एवं डीएस / एआईओबीसीआई / रायपुर। Sr DEN/Co-ord/R, DC-SECRM/R, DS-AISCSTREA/R, DS-AIOBCEA/R. OS/IT, Sr. DPO/R

उक्त अधिसूचना दक्षिण पूर्व मध्य रेलवे के वेबसाइट <http://www.secr.indianrailway.gov.in> में देखी जा सकती है।
Link of the Home page./Dept/ of SECR → Divisions→ Raipur→Personnel→Notification

कृते, मंडल कार्मिक अधिकारी (प्रभारी)

File No.SECR-R0PERS(PnM)/169/2022-O/o SR.DPO/R/SECR

Eligible staff (Main list)

Annexure-A

Srl No.	Name(Sri/Smt)	PF/NPS No.	Desig	Comm.	STN	Seniority No. in TM-I Category	Edu. Qualification
1	Ramawatar Sinha	07557371	TM-I	UR	AVP	1	12 th
2	Ram Prasad Bag	07557073	TM-I	SC	BMV	4	10 th
3	Dhiraj Nag	07968309	TM-I	ST	R	6	12 th
4	Khilawan Singh Netam	07972829	TM-I	ST	TLD	8	10 th
5	Chhannu Lal Tandon	07973056	TM-I	SC	BYT	9	12 th
6	Vimal Chand	07973159	TM-I	OBC	TLD	11	Graduation

Eligible staff (Stand by)

Annexure-B

Srl No.	Name(Sri/Smt)	PF/NPS No.	Desig	Comm.	STN	Seniority No. in TM-I Category	Edu. Qualification
1	R.Harihar Rao	07974401	TM-I	OBC	AVP	12	BA
2	K.Venkat Ramana Rao	07974838	TM-I	UR	AVP	14	BA
3	Irfan Nawed	07976239	TM-I	UR	BYT	15	12 th
4	Ramloo	07977992	TM-I	OBC	BIA	16	10 th
5	Deendayal	07548370	TM-I	SC	BMV	17	10 th
6	Ramesh Kumar	07557267	TM-I	ST	BXA	19	10 th
7	V G Sharma	07974334	TM-I	UR	BIA	23	10 th
8	Mindal Kumar Yadav	07977414	TM-I	OBC	BXA	29	Graduation
9	Sharwan Kumar	07967627	TM-I	ST	BMV	30	12 TH
10	Naresh Kumar Nishad	04AC0073	TM-I	OBC	BXA	32	Graduation
11	Govinda Narayan Sahu	07974668	TM-I	OBC	TLD	33	10 TH
12	Prem Lal Verma	04AC0107	TM-I	OBC	TLD	34	12 TH
13	Chiman Lal Deshmukh	04AC0126	TM-I	OBC	BXA	35	P.Graduation
14	Aghan Kumar	07967846	TM-I	ST	BXA	37	10 TH
15	B. Ramlu	04AC0295	TM-I	OBC	BIA	38	P.Graduation
16	Somnath Kanwar	04AC0171	TM-I	ST	AVP	39	P.Graduation
17	Chandahas Mandavi	04AC0174	TM-I	ST	AVP	40	Graduation
18	D. Srinivasa Rao	07967240	TM-I	OBC	R	43	10 TH
19	Johitram	07977293	TM-I	OBC	BXA	44	10 TH
20	Khodas Ram Mandey	04AC0113	TM-I	SC	BXA	45	10 TH
21	Ujiyar Singh Thakur	04AC0144	TM-I	ST	TLD	46	10 TH
22	Vinay Kumar Rajgeer	07968012	TM-I	SC	BYT	47	10 TH
23	N. K. Sahu	07973068	TM-I	OBC	BMV	48	11 TH
24	Deshi Ram Dhruw	07973615	TM-I	ST	BYT	49	12 TH

Ineligible staff

Annexure- c

Srl No.	Name(Sri/Smt)	PF/NPS No.	Desig	Comm.	STN	Seniority No. in TM-I Category	Edu. Qualification	Remarks
1	Baldeo	07516599	TM-I	SC	BIA	2	5 th	Due to not possessing requisite qualification
2	Punaradram	07504111	TM-I	UR	BXA	3	8 th	
3	Chironjilal	07969491	TM-I	ST	BMV	5	8 th	
4	Shivlal	07971424	TM-I	SC	TLD	7	8 th	
5	Tirith Ram	07520876	TM-I	OBC	BYT	10	5 th	
6	Dhananjay	07974759	TM-I	OBC	BXA	13	8 th	
7	Itavari Ram	07970833	TM-I	ST	BYT	20	8 th	
8	Suderson Singh	07968000	TM-I	ST	BYT	21	8 th	
9	Krishna Ku.Gendare	07977281	TM-I	SC	BXA	22	9 th	
10	Balmukund	07557401	TM-I	SC	BIA	24	8 th	
11	Devnath	07967950	TM-I	ST	BYT	25	8 th	
12	Guru Murty	07553584	TM-I	OC	BMV	26	Illiterate	
13	Ishwar Lal	07969624	TM-I	ST	BMV	27	8 th	
14	Ganesh Churra	07552920	TM-I	SC	BMV	28	8 th	
15	Krishna Kumar	07557413	TM-I	UR	AVP	31	8 th	
16	Sen Gupta	07551990	TM-I	SC	BMV	36	5 th	
17	Milan Prasad	07967962	TM-I	OC	BYT	41	8 th	
18	Man Singh	07548266	TM-I	SC	AVP	42	Illiterate	
19	Jagdish Prasad	07973093	TM-I	OBC	BYT	51	8 th	

Annexure-D

**APPOLOCATION FOR SUITABILITY (WRITERN TEST EXAM) FOR THE POST OF JE(P.WAY)
IN PAY MATRIX LEVEL-6 AGAINST 20% DPQ OF ENGINEERING DEPARTMENT**

1. Name of the Employee :
2. PF/NPS No. :
3. Designation/Station :
4. Date of Birth :
5. Community(UR/SC/ST) :
6. Date of Appointment :
7. Date of Promotion in TM-I :
8. Education Qualification :
(Copy enclosed)
9. Technical Qualification with Trade :
10. Willingness/Unwillingness :

Declaration:- I hereby declare that the particulars furnished are true, complete and correct to the best of my knowledge and belief. I understand that, if at any stage it is found that the information furnished is false or incorrect or I do not satisfy/fulfill the eligibility criteria, my candidature/appointment on promotion is liable to be cancelled besides disciplinary action as per rules. I have read the content of the notification and agree to abide by the Rules, regulation and procedure for promotion to the post of JE(P.WAY).

Date :

Signature of Employee
Name

Design./Stn
Mob.No.

It is certificate that the particulars furnished by the employee are verified with the records available in this office and found to be correct. He/She fulfils he eligibility criteria as stipulated in the notification.

Date :

Signature of the Unit Supervisor

Place:

Name
Design

Office Seal.



दक्षिण पूर्व मध्य रेलवे
SOUTH EAST CENTRAL RAILWAY

फोन:410885-07752 , फैक्स: 414042-07752

75
Azadi Ka
Amrit Mahotsav

प्रमुख मुख्य अभियंता कार्यालय, तृतीय तल, महाप्रबंधक कार्यालय, द.पू.म.रे. बिलासपुर - 495004 (छ.ग)
Office of the Principal Chief Engineer, 3rd Floor, GM Office, SEC Railway, Bilaspur - 495004 (C.G.)

No: SECR/HQ/Engg/Genl/NG/Syllabus/E-53146

Date:-15.02.2024

To,

Sr. DEN/(Co-ord)
South East Central Railway
BSP, R, NAG,

Sub: - Revised syllabus for examination of JE/P.Way Level-06 against 20% DPQ of Civil Engineering Department.

Ref: (1). Sr. DEN/Co-ord/SECR/BSP's letter no. SECR/BSP/ENGG/Gen/522 /Dep.
Exam/ Pt-V/26 dated.01.02.2024

(2). This office letter no. No.SECR/HQ/Engg/Genl/NG-Estb/Syllabus/JE (P.Way)/990
dated.05.04.2018

In reference (1) above; the existing syllabus issued under reference (2) is revised and approved by Competent Authority (i.e. PCE/SECR/BSP), for conducting examination of JE/P.Way Level-06 against 20% DPQ of Civil Engineering Department. The same is enclosed herewith for further course of action at your end please.

This is for kind information and necessary action please.

Encl. (Revised Syllabus in 06 Pages).

15/2/24

(Yuganter Kumar)
Executive Engineer/Genl
South East Central Railway, Bilaspur

Syllabus for Promotional Examination of JE/P-Way against 20% DPQ.

ORGANIZATION OF RAILWAYS, DUTIES OF P-WAY STAFF -

- | | |
|---|--|
| 1 | Overview of organization of Railways. |
| 2 | Brief introduction to track and its components particularly related with inspection. |
| 3 | Duties of JE/P-Way and inspection schedule of JE/P.Way. |

RAILS & JOINTS

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| 1 | Rail, Evaluation of Weight and its relation to axle loads. |
| 2 | Standard section, grade, UTS & service life, classification, Rolling marks. |
| 3 | Careful loading, unloading, stacking & handling of rails, special precautions for high UTS/HH rails. |
| 4 | Corrosion, Anticorrosion treatment. |
| 5 | Wear & its causes. Wear limits of different rail section. |
| 6 | Joints, Types, fish-plate, fish-bolts, anti-sabotage, fish-bolts, Combination fish-plates, Skimmed fish-plates, Chamfering of bolt holes, expansion/contraction of rails, requirement and provision of gap at joints., gapless/machined joints, Relation to rail temperature. |
| 7 | Fracture, codification, Restoration of traffic, how to report. |
| 8 | Preservation and testing of fractured rails. |
| 9 | USFD: Ultrasonic flaw detection, fundamentals of ultrasonic waves, defect detection, need based concept of USFD, components tested, frequency of testing, marking of defects, type of defects & action to be taken, brief description of various types of USFD machines and probes used, calibration and sensitivity types of USFD machines and probes used, calibration and sensitivity checking, defect codification, limitations of USFD, SPURT Car. |

SLEEPERS & FASTENINGS

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| 1 | Concrete sleepers. Mono-block/Wide base PSC sleeper General aspects, Instructions for usability of different sleepers on different routes, main lines and long welded rails, Spl Sleepers for L-Xings, turnout, SEJ, bridges approach and sharp curves. |
| 2 | Precaution for handling of PSC sleepers. |
| 3 | Fastenings for PSC sleepers: Malleable cast iron inserts. Elastic Rail Clips, various types, toe load and its measurement, criteria for fastening renewal. Rubber pads, Liners, Anti sabotage arrangements for various sleepers. Creep anchors, method for fixing. Box anchoring. Greasing and anti-corrosive measures. |
| 4 | Sleepers at joints & their spacing for concrete sleeper track. |

FORMATION & BALLAST

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| 1 | Typical sections of track on banks and cuttings for single/double lines on all gauges. |
| 2 | Drainage, Slope on top of formation, side and catch water drains. |
| 3 | Ballast sections of different routes for straights and curves on single/double lines. On different gauges for fish plated track. SWR and LWR. Sections for branch lines, Loop and sidings. Requirement Ballast Cushion required for various routes . |
| 4 | Quantities for different sections. |
| 5 | Specification for track ballast. |

Railway Track & Track Structure-I	
1	Different Gauge
2	Classification of Routes
TRACK STRUCTURE IN YARDS	
1	Track Structure(Yards), Simple layouts, loops, gathering lines, overrun line, shunting neck, hot axle/fuel stabling siding,
2	Isolation derailing switch, Scotch block, Sand hump, dead ends, Catch & slip siding. Fouling marks. Restriction in use of 1 in 8.5 turnouts on passenger lines.
3	Restrictions regarding change of grade on approaches of turnouts.
TURNOUTS – INTRODUCTION	
1	Standard types, ordinary built-up and Cast manganese crossings, Straight switches. Curved switches, Thick web Switches, Derailing switches, Spring points, Other crossing types. Permissible wear limits of crossing and tongue rail, Turn in/ Turnout curve.
2	Permissible speeds, Restrictions on use of 1 in 8.5 Turnout on Passenger Running Lines, Symmetrical split.
TURNOUTS- ASSEMBLY & LAYING	
1	Method of Assembling all Turn Outs, Main dimensions and off sets of lead curve for setting out.
2	Contrary and similar flexure turnouts: Definition.
3	Methods of Assembly.
4	Main dimensions for setting out, laying and maintenance of fan shaped turnouts, maintenance of Turn Outs with reference to CMS Crossing.
DIVERSIONS	
1	Definition, Types of diversions.
2	Standard for laying diversions
3	Calculating length of diversions.
TRACK STRUCTURE -II	
LEVEL CROSSINGS	
1	Features of track at and in approaches of level crossings, Annual overhauling, maintenance of road surface and approach track, Check Rails-types, correct clearance, , Visibility, Classification of LC
2	Requirement Checking of equipments and knowledge of rules of Gatemen.
3	Inspection of L-Xing, Duties of Gate Keeper, Hot axle train parting.
4	Speed breakers, Road sign Boards, Provision of new LCs, Manning, De-Manning, Interlocking & replacement with ROB, closure, shifting and replacement with limited height subway/RUBs, Elimination Specification.
BRIDGES AND TRACK STRUCTURE ON BRIDGES	
1	Bridges: Track Structure on Girder Bridges, ballasted decks, arch bridges, tunnels, provision of guard rails.
2	Importance of maintaining correct gauge, Alignment & tight fastenings, preparation.
3	Attention to approach track and strengthening, Cleaning of water way, Checking guard rails

BALLAST DEPOT, TRAINING OUT BALLAST, DMT OPERATION	
WELDED RAILS	
SHORT WELDED RAILS(SWR)	
1	Conditions of laying, Maintenance of SWR.
2	Gap Survey & adjustment of gap.
LONG WELDED RAILS(LWR)	
1	Permitted locations for laying, Track Structure, Laying of LWR.
2	De-stressing-with and without rail tensors.
3	Repairs of rail fractures.
4	Repairs of buckling.
5	Maintenance precautions, Overhauling, Deep screening, Renewal.
6	Determination of stress-free temperature.
7	Inspection of LWR and remedial actions for correction of gaps at SEJ, Hysteresis loop.
8	Competency level to carry out various works in LWR Track, Dos & Don'ts.
WELDING OF RAILS	
1	SPW, Wider gap, Welding, compressed air pre heating, 3 piece mould AT welding technique.
2	Precautions to be observed during AT welding for good quality.
3	Tolerance for finished AT welds and FB welds.
MAINTENANCE	
1	Approved systems, Systematic Maintenance conventional through packing, directed track maintenance and 3-tier system of maintenance.
2	Record of Gang work, Gang chart/Diary, Keyman's Diary, Mate's Diary, Record of work of Artisans and other workmen.
REGULAR MAINTENANCE OPERATIONS	
1	Maintenance of concrete sleeper track.
2	Deep Screening.
3	Lubrication of joints & Lubrication of rails in straight and on curves, maintenance of rail joints.
4	Incidental works: Creep, Importance of joint gaps, Gap surveys.
5	Buckling.
6	Lifting & lowering of track: Undesirability of lowering, maximum lifting/lowering at one time, Provision of ramps at ends, Adequate ballast cushion and drainage after lowering.
7	Overhauling, Maximum wear of xing making up wear by welding, Welding of joints on turnouts, gapless joints of xing joints.
8	Maintenance in electrified territories, maintenance of track circulated sections, use of insulated trolleys, Gauges and other tools maintenance of insulated joints, glued joints, Felling/Cutting/Pruning of trees obstructing view or very close to OHE.
PROTECTION, RESTRICTIONS & ENGINEERING INDICATORS	
1	Hand signals in day and night, Hand flags, Hand lamps, Banner flags, Detonators & Fuse, Life of detonators, testing, fog signals/fuse.
2	Engineering, Indicators, Fixing of Engineering Indicator for various works. Temporary and Permanent Speed restrictions. Speed restrictions for various works.
3	Works of short and long duration, Protection during emergency Caution order.

PATROLLING	
1	Necessity of Patrolling.
2	Kinds of patrolling i.e. Key man's daily patrol, Gang patrol, Monsoon security, Hot & Cold weather patrolling, Watch at vulnerable points, Weather warnings, Single and double frequency patrolling.
3	Patrol charts, Patrol books and equipment's, Selection and duties of patrolmen.
4	Night checks & Inspections.
5	Felling/Cutting pruning of tress obstructing view & very close to OHE.
MECHANIZED MAINTENANCE	
1	3-Tiers system of track maintenance, Working of MMUs.
2	Small track machines: types, use in maintenance, spot attention with off track tampers, Troubleshooting and system of repairs & maintenance.
3	Pre-requisites to tamping of plain track & turnout tamping and other machine working like BCM, PQRS, TRT, T-28, etc. Pre & Post and during attentions for tamping and other machine working.
4	Design mode tamping : Survey and procedure of tamping.
TOOLS & EQUIPMENTS	
1	Measuring tools.
2	Regular Maintenance Tools.
TROLLY/LORRY/DOLLY WORKING	
1	Distinction between Trolley, Lorry & motor Trolley.
2	Protection, Working of rail dolly and its protection.
RECONDITIONING OF MATERIALS AND TOOLS	
1	Reconditioning of worn-out crossings and switches, type of electrodes used.
SAFETY	
CURVES	
HORIZONTAL CURVES	
1	Degree of curve, Types of curves, Relation between degree, Radius, Chord and versine, Standard chords to be used for stringing.
2	Record in SE/P-Way's curve register checking of alignment after derailments and for turn in and turnout curves.
3	Super elevation/equilibrium cant, Maximum cant for normal and high speed trains, Cant deficiency and cant excess, Formula for safe speed on curves, Equilibrium speed, Calculation of cant to be provided and permissible speed, Transition length, Maximum cant gradient, Rates of running out of cant and cant deficiency.
4	Types of curves, Setting out of curves, Cubic parabola off sets for setting out transition curve, Shift calculations for setting out complete curve with theodolite.
5	Miscellaneous – Running out cant on transitioned curves, Gradient rail, Laying of rails on curves, Mid stagger joints on sharp curves, Curve markers and cant boards. Lubrication on curves.
6	Widening of gauge on curves, Extra clearance on curves. Minimum length of straight between reverse curves.
7	Curves with similar and contrary flexure. Calculation of cant to be provided and permissible speed, Curve with X-over und diamonds.
VERTICAL CURVES	
1	Calculations and setting out a vertical curve, Level pegs for accurate maintenance.
2	Vertical curves on LWR.

REALIGNMENT OF CURVES	
1	Re-alignment of curves, String lining of curves. Need for curve. Adjustment.
2	Calculations of slews by double summation method.
3	Slewing to revised versine. Local adjustment.
4	Optimization method of curve realignment.
SAFETY EQUIPMENTS & TRAINING	
1.	Detonator and its life.
2.	Training of Mate, Keyman & Trackman.
3.	Category of Medical Examination.
4.	Authorized level of supervision for various track works.
SCHEDULE OF DIMENSION-2022	
1.	Standard Dimension for new/existing work(Chapter-I)
2.	Standard Dimension related to Station Yards(Chapter-II)
3.	Standard clearance for various structures pertaining to track.
TRACK RENEWALS	
1	Casual renewals, Complete track renewals, Through rail renewals, Through Sleeper renewals, Through fitting renewal and through ballast renewal.
2	Criteria for unserviceability for casual renewals.
3	Criteria for various track renewal works.
4	Methods of renewals. Preparation, Labour Organisation. Tools. Ballast.
5	Careful handling of materials. Speed restrictions and post relaying attention
6	Picking of released materials. Classification & disposal. Relaying with PQRS equipment, Record of relaying, Track relaying train, Relaying of turnout with T-28. New track laying standards, handing over: Taking over of new track.
INSPECTIONS, TRACK RECORDING & MONITORING	
1	Riding quality, TGI, Track geometry, Condition of track structure, Correct methods of work, Testing knowledge of rules.
2	Inspection of Points & Crossings, Curves & other special Structure and their frequency of inspection.
3	2 Method of Inspection: Push trolley, Motor trolley, Foot inspection, Engine & Rear van Inspection, Amsler car, TRC, Oscillography car, OMS.
4	Inspection of track geometry, inspection of Gang's work: quality, methods, progress, tools and equipments, knowledge of rules, attendance, Gang chart and diary, inspection of finished work, Inspection of bad riding spots, spots identified by TRC for urgent maintenance, Frequency of TRC/OMS, Systematic measurement and investigation of defect.
ACCIDENTS & DISASTER MANAGEMENT	
1	Duties of JE/P-Way in disaster management.
2	Sounding of hooters & classification of accidents.
3	Action to be taken on reaching site, First aid, preservation of clues, Assessment of men and materials for restoration, Recording site and track particulars, Preparation of a sketch, Expeditious restoration.
4	Drivers report on bad riding, Breaches & its types, Prevention & action during breach, Vigilance on Railway Affecting tanks.

CE-MIS (TMS)	
TMS	
1	Track Management System: Introduction to TMS, purpose, advantages, main feature.
CONTRACT MANAGEMENT	
1	Various registers to be maintained for progress, Quality, safety of contractors persons, Safety measures at work site.
2	Preparation of Contractor's On-Account/Running & Final Bills. Material Statements, Maintenance Period.
3	Hiring of tools and plants to Contractors.
4	Duties towards payment to contractor's labour and maintenance of records as per labour laws.
LAND MANAGEMENT	
1	Demarcation of land boundaries.
2	Type of encroachments and PPE Act.
OFFICE & STORES	
1	Procuring of office stationery and stores. Procuring of P.Way stores for maintenance and for special works. Classification of stores. Accountal of stores. Stock verification reports. Disposal of scrap & surplus stores. Overhauling of stores. Numerical ledgers & inventory control. Section register of SE/P.Way.
2	Classification of stores. Stock verification. Stock Sheet. Submission of returns. Inventory control. Maintenance of DMTR and ledgers, Submission of store returns in time. Materials at site register. Imprest Store. T&P Store.
3	Functioning of divisional Stores Depots and Track Depot. Requirement of materials for casual renewal and sanctioned renewals. Working out list for track materials. Proper care & upkeep of store.
PERSONNEL	
1	Wage period. Bill preparation. Filling up of TA & OT Journals. Witnessing of payment, unpaid wages.
2	Passes and leave.
3	Establishment Records in SSE/JE P.Way office.
4	Settlement:- PF. Pension. Gratuity. Leave Encashment. Filling up of Pension Booklet.
5	Railway Services (Conduct) Rules. D&A Rules.
6	Categories of staff under Hours of Employment Regulations.
7	Labour Laws – overview: Display of Statutory Notices. Inspection by Labour Enforcement Officer.
8	Payment of Wages Act. Minimum Wages Act. Contract Labour Act.
9	Workmen's Compensation Act. Action in case of injury on duty. Ex-Gratia Payment.
RAJBHASHA	
1	Directives in use of Raj Bhasha in day-to-day working.
2.	Rajbhasha Act 1963 & Rajbhasha Rules-1976