East Central Railway

Office of the
General Manager(P)
Hajipur

No. ECR-HQ0PERS(SEL)/0010/2024

Secy. to GM/ECR: For kind information of GM
Dy. Secy. to AGM: For kind information of AGM.
PS-I to PCPO- for kind information of PCPO.
PCSTE/ECR/HJP,SDGM/ECR/HJP & PFA/ECR/HJP.
CAO(Con)(S&N)/MHX/ECR/PNBE.
CAO/DLF/MEW, CAO/GELF/DMH, CAO/RWP/Bela, CAO/WPO/PNBE.
General Manager (P)/NCR & CORE/Allahabad.
CPD/RE/DNR.
CSTE/Con/S&N/ECR/MHX/PNBE.
CPO(A)/ECR/HJP.
DRM/ECR/DNR, DDU, DHN, SEE & SPJ.
CSO/ECR/HJP, CWM/PD/DDU, WS/SPJ & CRW/HRT.
Sr.DPO/ECR/DNR, DDU, DHN, SEE & SPJ.
Sr. DSTEs/DSTEs/ECR/DNR, DDU, DHN, SEE & SPJ.
Dy.CPO/IR&W/ECR/HJP, Dy.CPO/MPP/ECR/HJP & SPO/PD/DDU.
Principal/ZRTI/E.C.Rly/Bhuli & MFP.
SPO(Con.)/MHX/PNBE.
APO/ESM & APO/M&E/HQ/HJP
APO/MPP/ECR/HJP :- for uploading on website.
All Extra Divisional Units
General Secretary/ECROA, ECRPOA & ECRKU.

Sub:-Selection for the post of Assistant Signal & Telecom Engineer (Group'B') in Level-8 of Pay Matrix, (Pay Band Rs. 9300-34800/-(PB-2) Grade Pay- 4800/- as per 6th CPC) against 70% quota.

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With approval of General Manager/ECR, it has been decided to hold a selection for formation of the panel against 13 vacancies for the post of **Assistant Signal & Telecom Engineer (Group 'B') against 70% quota** over E.C. Railway, through centralized CBT by NAIR in terms of Railway Board letter No. E(GP)2024/2/28 dated :27.09.2024, as per details given below: -

Selection	UR	SC	ST	Total	PwBD (*)
ASTE (Gr."B") 70%	10	2	1	13	1

(*) Horizontal Reservation for Locomotor Disability (LD)– One Arm (OA)/One Leg (OL), Leprosy Cured, Acid Attack victims as per Railway Board's letter No. E(GP)/2022/2/20 dated 18.08.2022 & 14.11.2022.

1. (a)Main Examination through CBT :- 09.03.2025 (Tentative)
   (b) Venue, Time& Viva-voce :- will be notified in due course.

   Note# Successful PwBD candidates in the written test (CBT) will be subject to medical examination in safety category by the Railway medical authority prior to viva-voce.

2. <u>Eligibility (As on 01.01.2025)</u>

   (i) All Permanent Group 'C' technical staff/employees of S&T Department working/holding lien in S&T Department of East Central Railway, who have rendered not less than 03 years non-fortuitous service in Level-6 of Pay Matrix (Pay Band of Rs. 9300-34800/-(PB-2)Grade Pay-Rs.4200/- as per 6th CPC) as on 01.01.2025, are eligible to apply for the above mentioned selection.

Cont. at P/2

NB :- However, those Gr."C" employees who have been provided G.P. Rs. 4200/- or above in PB (9300-34800) under ACP/MACP are not eligible to volunteer for the above written examination.

(ii) As per Railway Board's letter No. E(GP)/2005/2/74 dated 13.03.2008 (RBE No.40/2008), in case of person transferred at own request to this Railway in the same category of posts, and assigned bottom seniority therein, the service rendered by them in the previous unit may be reckoned for determining their eligibility, wherever a minimum length of service is prescribed as a condition for promotion in the new unit, subject to the condition that the length of service which is so allowed to be counted does not exceed the length of service of their immediate senior in the new unit.

(iii) In terms of Railway Board's letter No.E(GP)2024/2/28 dated 08.10.2024, it has been decided by the Board that henceforth, in respect of 70% selections to Group "B" posts, all employees who are eligible and who volunteer for the selection, should be considered without any limitation of number. Hence, the employees who are fulfilling the eligibility criteria for the post may submit their application.

(iv) All the volunteer who fulfill the above mentioned conditions of eligibility will get chance to complete in the above examination, without any restrictions to the number of eligible candidates to be allowed for appearing the examination.

(v) In terms of Railway Board's letter No. E(GP)2024/2/09 dated: 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 pertain only to reckoning eligibility for promotion to Group "B" Posts.

(vi) As advised in RBE No.102/2019 dated 25.06.2019, the time spent by Railway servant under training immediately before appointment to service is to be counted as service is to be counted as service for the purpose of appearing in Departmental Examination including LDCE for promotion to Group "B".

(vii) The volunteers who have completed 3 years of Non-fortuitous service in the current seniority unit of the cadre as on 01.01.2025 are only eligible to apply. The same may be verified and ensured by the personnel Officer/Establishment officer concerned while forwarding the applications.

(viii) If any candidate is subsequently found ineligible for the above selection, at any stage, his/her candidature will be rejected.

(ix) Eligible staff who desire to volunteer for the above 70% Selection may submit their application through proper channel to their respective Personnel Branch officer where they hold their lien.

(x) Eligible staff working in the Construction/Project Organization on deputation, training and any Ex-cadre Organization and having lien and seniority in ECR, who desire to volunteer for the above 70% Selection may also submit their application through proper channel i.e. their respective Personnel Branch officer, where they hold lien. The concerned Divisions/Units should send copy of notice to the staff who are on deputation after being released from that Divisions/Units.

(xi) When an employee is holding an ex-cadre post, details of his/her post in regular cadre with the grade and date of entry as a regular measure should be furnished. This may also be brought to the notice of all concerned. It may be ensured that wide publicity is given to this notification amongst all the eligible staff. It is the personal responsibility of the personnel Officers/Controlling Officers of the Units to ensure that the notification reaches to all the eligible employee well in time.

Cont. at P/3…..

The cut-off date of eligibility for candidates for 70% selection is 01.01.2025.

(3) Normally, there is no provision for holding absentee written examination. However, in exceptional circumstances, where sufficient and satisfactory reason/proof beyond control of candidates are available, (viz either the candidate under RMC or he was not spared by his controlling officer due to administrative reasons), only such candidates may be allowed to appear in absentee written examination with approval of the Competent Authority. It will be responsibility of the candidate to advice reasons of absence through controlling officer to Dy.CPO(Gaz)/E.C.Railway/Hajipur within 03 days from the date of CBT by NAIR.

In case of failure to comply the above instructions by the candidate, he/she will not be allowed to appear in the absentee written examination, if held.

(4) The above selection will be based on the candidate's performance both in CBT Examination, Record of Service as well as viva-voce. The candidates, who qualify in the CBT Examination followed by medical test of specified category will only be eligible for the viva-voce test. The placement f the candidates in the panel will be based on their performance in the CBT Examination, Viva-voce & Record of service as per extant procedure of Railway Board's instruction.

The candidature of the candidates is accepted provisionally. In case, any candidate is subsequently found ineligible for the above selection at any stage, his/her candidature will be rejected without any further notice.

(5) **CBT/Written Examination/Main Examination :-**

The CBT Examination will be conducted as per guidelines/instructions contained in Railway Board's letter No. E(GP)2018/2/31 dated 19.03.2019 (RBE No. 53/2019) &E(GP)2022/2/4 dated 07.10.2022, the CBT Examination shall comprise of one paper which shall have 100% objective type multiple choice question only.

The paper will be of 100 marks and the distribution will be as under:-

(i)	One paper on Professional Subject including optional questions of 10 marks on Official language policy & Rules	:-	70 marks
(ii)	Establishment and Financial rules	:-	30 marks
	Total	:-	100 marks
(iii)	Qualifying marks	:-	60 marks.
(iv)	Duration of examination	:-	02 Hours.

All Objective type questions will carry equal marks. In terms of Railway Board's letter No. E(GP)/2024/2/28 dated : 08.10.2024 (RBE No. 93/2024) there shall be no negative marking in CBT Examination held as part of Selections (70%) where the final panels are made on seniority basis.

Since ASTE is safety post, no relaxation is admissible to SC/ST candidates as per extant rules.

(6) **Viva-voce & Record of service:-**

	Maximum Marks	Qualifying Marks
Viva-voce	25	30 (including at least 15 marks in the Record of Service)
Record of service	25	

Cont. at P/4

(7) **Syllabus:-**The syllabus as prescribed by Railway Board vide letter No. E(GP)2022/2/4 dated 07.11.2022 for 70% selection for Group 'B' post of ASTE in S&T Department, copy of syllabus for above selection is attached as Annexure-'C'.

(8) The controlling Officers should give wide publicity of this notification amongst the eligible staff/employees under their control and ensure submission of applications by the candidates in the prescribed Proforma (specimen copy enclosed as Annexure-'A') within the stipulated time mentioned below.

The last date for submission of the application by candidates duly countersigned by their controlling officer to the concerned Personnel Branch officer is **02.12.2024**. The filled-up applications should be scrutinized properly by associate Personnel Branch with the service records to avoid any factual errors and future complications. The applications should also be signed by the Controlling Officer with official seal and should have the counter signature of the concerned 'P' Branch Officer. All the applications received by the Personnel Branch Officers through controlling officers should be sent in a bunch so as to reach Dy. CPO/Gaz./ECR/Hajipur, on or before **09.12.2024** positively. Applications forwarded after the last date will not be entertained under any circumstances. It may please be noted that application other than in prescribed Performa or without signature of controlling officer and checked & counter signature of Personnel Branch Officer will not be entertained.

(9) In case, service particulars furnished by the volunteers/certified to be in order by the concerned authority are found incorrect/false subsequently, the candidature of the volunteers will be liable to cancelled at any stage during & even after the above selection process.

(10) **TRAINING OF SC/ST CANDIDATES:-**

Since, there is reserved post of SC/ST in the vacancy assessment, Pre-promotion training will be imparted to only SC/ST candidates as per RB's letter no.E(GP)2010/2/39 dated 28.08.2019 (RBE No.142/2019).

In terms of Railway Board's letter No. E(GP)2022/2/4 dated 18.10.2022, before conducting CBT/Written/Main examination, mandatory Pre-selection coaching classes of 60 hours/15 working days to all SC/ST eligible candidates will be arranged by the department concerned. PCSTE will nominate the JAG or above officer of S&T Department as an in charge(s) of pre-selection coaching. The in-charge(s) will also intimate the date and venue of the pre-selection coaching in due course.

If any SC/ST candidate refuses to undergo pre-selection coaching, a written undertaking should be obtained from him/her and the same may be sent to Dy.CPO(Gaz.)/ECR/HJP as well as PCSTE/ECR/HJP. The controlling officers should ensure that the SC/ST candidates under their control are spared without fail on time to participate in the coaching.

The SC/ST candidates are also advised to insist their controlling officers, in their own interest, to spare them for the said coaching.

(10.1) **Duty of the in-charge of Pre-selection Coaching (To be nominated by PCSTE):**

(i) To inform in writing through special messenger to the eligible SC/ST employee regarding date, time & venue of coaching.
(ii) To obtain in writing the unwillingness to attend the coaching, if any, from the eligible SC/ST employees.
(iii) To co-ordinate and arrange sparing of the eligible SC/ST candidates.
(iv) To chalk out coaching schedule.

Cont. at P/5

(10.2) Duty of Controlling Officer:-

To spare the candidates under their control without fail in time with the direction to participate in the pre-selection coaching as well as to appear in the written examination also.

(10.3) Duty of concerned SC/ST applicant:-

(i) To arrange their sparing from duty by insisting their controlling officers in their own interest.

(ii) If any problem occurs in sparing, the candidate should report in writing to concerned in-charge of Pre-selection Coaching on the same date. No representation will be entertained in case of failure to report to the concerned in-charge of Pre-selection Coaching and it will deemed to be refusal for the same.

(iii) Failure of concerned SC/ST employees to avail Pre-selection Coaching on any account including leave etc. will be considered on their part and no supplementary coaching will be organized in any circumstances.

(iv) No appeal will be entertained by GM(P)/ECR/HJP office after completion of Pre-selection Coaching.

After completion of Pre-selection Coaching, the In-charge of the Pre-selection Coaching will give a written report along with all supporting papers including attendance sheet of SC/ST participants to Dy.CPO/Gaz/HJP within three days of completion of said training.

(11) The Controlling/Authorized officer should ensure to issue individual sparing letter/identity slip duly attesting specimen signature of the candidate on the sparing letter/identity slip with direction to attend the CBT/Written/Main examination (date will be advised in due course). The candidates without proper sparing letter/identity slip will not be allowed to appear in the examination.

(12) ACTION TO BE TAKEN ON RECEIPT OF APPLICATION BY CONCERNED PERSONNEL OFFICERS/CADRE CONTROLLING OFFICERS :-

(a) The Personnel Officer/Cadre Controlling Officer will check the correctness of all the particulars of the applications with the Service Records and other relevant records and certify the correctness of each column of the application. Without such certification, application received will summarily be rejected and the responsibility will be fixed for incorrect or incomplete certification against the Officer who will certify/verify. The Personnel Officer/Cadre Controlling Officer should invariably write "Checked and verified" in each and every application after checking and verifying the details duly attesting their signature and date of certification (the date of certification should invariably put in the application).

In case, the Personnel/Cadre Controlling Officers do not put the date after certification or merely forward the application without checking and verifying the details, the matter would be brought to the notice of PCPO and concerned PHOD for taking action against him.

(b) It may please be noted that Controlling Officers/heads of the Units have no discretion to entertain any application beyond the last date. **The applications of the employees, who are eligible, should only be forwarded after verifying the other relevant particulars and ineligible application should not be forwarded.**

Cont. at P/6

(c) The Personnel Officer/Cadre Controlling Officer should forward the scrutinized and checked applications in one bunch together under one covering letter furnishing the details in the following proforma addressed to Dy. CPO/Gaz./HQ by **09.12.2024** indicating therein the total number of applications forwarded. (The details should be sent in soft copy in (MS/Excel format also as in the Performa as Annexure "B"). The applications rejected may be intimated to the individuals giving reasons thereof by the concerned staff held.

(13) The above selection will be held as per procedure laid down in Master Circular- 68, governing promotion from Gr. 'C' to Gr. 'B' issued by Railway Board and the instructions issued from time to time. The said master circular is available on website www.indianrailways.gov.in....>Ministry of Railway…>Railway Board…..>About Indian Railway…..>Railway Board Directorate… >Establishment…>E(GP) Circular…..> Master Circular 68.

Please acknowledge receipt.

DA : (i) Proforma (Annexure-'A')
(ii) Proforma (Annexure-'B')
(iii) RB' letter No.E(GP)2022/2/4 dated 07.11.2022

Signed by
Ajeet Kumar
Date: 18-11-2024 18:37:28

APO/Gaz
For General Manager(P)/HJP

Annexure 'A'

PROFORMA OF APPLICATION FOR ASTE/(Gr.'B') 70% QUOTA AGAINST NOTIFICATION No. ECR-HQ0PERS(SEL)/0010/2024 dated 18.11.2024

(It is mandatory to fill each and every column with correct information.)

1. Information regarding candidate:

Sl. No.	Particular	Filled by candidates
1	Name of applicant (In Block letter)	
2	IPASS Number (11 digits)	
3	HRMS ID	
4	Designation	
5	Mobile No. (Registered with HRMS ID)	
6	Email.ID	
7	Place of posting	
8	Division/Workshop/Unit	
9	Division/Unit where **lien held at**	
10	Working under (Controlling Officer)	
11	Educational Qualification	
12	DOB (DD/MM/YYYY)	
13	Community (UR/SC/ST) (if SC/ST, a copy of caste/Tribe Certificate duly attested by a Gazetted officer should be enclosed with application	
14	(i) Date of initial appointment in Railway Service	
	(ii) Designation at the time of initial appointment	
	(iii) G.P/level at the time of initial appointment	
15	Date of Appointment (DD/MM/YYYY) (Regular appointment date after training, where mandatory training is envolved)	
16	Belongs to PwBD (40% or more), if yes mention category and attach certificate.	
17	If a PwBD, whether entitled to Scribe (Yes/No)	
18	To be filled up by those employees only, who were transferred to present division on Own request/Mutual transfer.	
19	Whether came in present unit on own request transfer basis or Mutual transfer basis ? (mention 'Yes' or 'No')	Own request transfer :-
		Mutual transfer :-

20	If, came in present unit on own request basis or Mutual transfer basis, following details must be mentioned :-			
	Transferred From		Transferred To	
	Division/Railway		Division/Railway	
	Designation		Designation	
	Pay Level		Pay Level	
			Joining date in present Railway/Division	
	Effective date of Seniority	In level-6	Date :	
		In level-7	Date :	

21	To be filled up by those employees only, who were On deputation.	
	(a) Are you on Deputation (Yes/No)	(b) Parent Unit :-
	(c) Substantive Designation and Pay Level in your parent unit :-	(d) Officiating Designation and Pay Level :-

2. Date of appointment/promotion (on regular basis) and Length of non-fortuitous service (on regular basis) as on 01.01.2025.

Grade	Date of appointment/promotion (on regular basis) [in DD/MM/YYYY]	Length of non-fortuitous service (on regular basis)			
		As on	Year(s)	Month(s)	Day(s)
(a) In PB-II GP-4200					
(b) In PB-II GP-4600					

3. Present pay & level (GP) & Date of promotion to present Scale/grade. :-

4. DECLARATION OF THE CANDIDATE:- I do hereby declare that the above particulars furnished by me are true to the best of my knowledge and belief. I further undertake that in the event of any entry above is found incorrect or improper, my candidature shall liable to be cancelled at any stage during pendency of the above selection and disciplinary action may be taken against me under the RS(D&A) rules-1968.

SIGNATURE OF THE CANDIDATE (in HINDI) **SIGNATURE OF THE CANDIDATE (in ENGLISH)**

(A)<u>Forwarding of application (filled-up) furnished by the candidate to the Personnel Branch Officer by his/her controlling officer</u>:-

The application is in prescribed proforma duly filled-up by the candidate, Shri/Smt._____ Designation_____ received within the target date is hereby forwarded to his/her Personnel Branch Officer for verification with the service record available and for onward transmission to the General Manager (P)/ECR/HJP.

<u>SIGNATURE OF CONTROLLING OFFICER (With office seal & date)</u>

(B)Certificate to be furnished by the Personnel Branch Officer :-

If the volunteer comes under the circumstances mentioned in Para **2(ii)** of the notification the service rendered by **immediate senior employee as on 01.01.2025** should be indicated invariably in the following format.

Sl. No.	Name(S/Shri) of immediate senior	Designation	Pay leves(GP)	Whether ORT or Mutual	Year(s)	Month(s)	Day(s)
			In PB-II GP 4200				
			In PB-II GP 4600				

It is certify that the Service Particulars/Bio-Data furnished by Shri/Smt. ……..…., Designation ……..…… in the prescribed proforma (Bio-data) have been checked and verified with his/her service record and found correct.

The above mentioned candidate is eligible to appear in the said selection as per Notification and his/her application is hereby forwarded to GM (P)/Hajipur for further necessary action.

SIGNATURE OF THE CADRE ('P' BRANCH) OFFICER (With office seal & date)

<u>Note:- The application with any column unfilled will be summarily rejected</u>

Centralized CBT for Gr. 'B' selection against 70% for the vacancy cycle 2025-26															Annexure-B			
Particulars of eligible applicants																		
S.No	Post Name	**Name of the applicant (S/Shri)**	**I-pass No.**	**HRMS ID**	**Design.**	**Mobile No.**	**Email ID**	**Place of Posting**	**Div./ workshop/ Unit**	**Controlling Officer**	**Dt of Birth (DD/MM/ YYYY**	**Date of Appt**	**Date of Promotion in Level-6**	**Date of Promotion in Level-7**	**Commu -nity (UR/SC/ ST)**	**PwBD or Not (Yes/ No)**	**PwBD Catego ry, if any**	**Whether a PwBD requiring scribe**
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	ASTE																	
2	ASTE																	
3	ASTE																	
4	ASTE																	
5	ASTE																	
6	ASTE																	
7	ASTE																	
8	ASTE																	
9	ASTE																	
10	ASTE																	

ANNEXURE- 'C'

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, Cannons 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 *Wo*rkshops/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% Selection for Promotion to Group 'B' post of ASTE in Signalling & Telecommunication Department

Part – A - Professional Subjects

I. Signalling :

- Basics of Signalling
- Principles of Interlocking, Signal Interlocking Plan, Route holding principles, Table of Control
- Colour Light Signal concepts
- Signalling Elements – Relays, Cables, LED Signals, Point Machines, Track Circuits (DC, AC & AFTC), Axle Counters (SSDAC & MSDAC), Block instruments, Integrated Power Supply, Interlocked Level Crossing Gates and Data Loggers
- Automatic Signalling
- Intermediate Block Signalling, BPAC, UFSBI
- RE Modifications
- Relay Interlocking concepts - Metal to Carbon, Metal to Metal, Panel Interlocking and Route Relay Interlocking
- Electronic Interlocking – Principles, Configuration, Interface logic, Application logic, VDU logic, FAT, SAT, Technical System Approval
- Earthing, Lightning and Surge protection arrangements
- Train Protection Systems – TPWS, Kavach
- Centralised Traffic Control (CTC) , Train Management System (TMS)
- Execution of S&T Infrastructure works – Planning, Execution, CRS sanction, Documentation, Testing and Commissioning

II. Telecommunications –

- Outdoor and Indoor Telecom cable system, jointing procedures, and maintenance and fault localisation methods, laying practices and precaution at work site
- Control Communication, OFC based, VoIP based, Emergency Control Communication, Voice Logger, COA
- Telephone Instruments, Signalling principles of Telephone Exchanges, Automatic, ISDN, and VoIP Telephone Exchanges
- PCM-TDM Principles, PD multiplexers, SDH principles and SDH equipment's
- Modulation techniques and radio propagation
- VHF, UHF, Tetra, GSM-R, LTE-R
- OFC Communication systems, OFC Splicing, Measurements and laying practices
- Data Communication and IP networks, IP-MPLS, Data networks of IR, PRS, UTS, FOIS, TMS, NMS, Wi-Fi at stations, Firewalls/UTM, Cyber security and Wireless security
- Public address system, Passenger information systems and VSS

III. Codes & Manuals

- General Rules

- Railways (Opening for Public Carriage of Passengers) Rules
- Indian Railways schedule of dimensions
- Indian Railway Signal Engineering Manual
- Indian Railway Telecom Manual
- Accident Manual
- Block working Manual
- Extracts of Operating manual for Indian Railways, Indian Railways manual of AC Traction Maintenance and Operation and Indian Railways Permanent Way Manual relevant for Signal & Telecom Engineers

IV. Workshop Practices

- Raw material processing
- Workshop Machines and their utilisation
- Overhauling procedure and practices
- Inspection and testing of components
- Testing procedures of Block Instruments , Relays, Point Machines, IPS, EoLB, Track Feed Battery Chargers, EKTs, Control Panels and Mechanical Items
- RDSO approval procedure and Renewal
- Production Management Plan
- Quality control and Safety Practices
- Calibration of instruments and machines
- ISO/IMS Certification for workshops
- Scrap disposal
- Workshop suspense
- Costing of products
- Incentive schemes

Part-B - Official Language

Official Language - Official Language Policy, Act, Rules, Incentive Schemes etc.