

संख्या/No. SER/P-KGP/EN/210/10/JE(Sig.)/DPQ/Notification/2025

To
The Sr. Divl. Sig & Tele. Engg. (Co),
South Eastern Railway, Kharagpur**NOTIFICATION**

Sub:		Selection through Centralized CBT for formation of panel of JE(Sig) in pay matrix Level-6 (GP-Rs. 4200/-) against 40% DPQ of S&T Department of Kharagpur Division.
Ref:	i)	SER Estt. Srl No. 07/2024 & 54/2024.
	ii)	PCPO/GRC's Draft Notification No. SER/P-HQ/EN/JE(Sig)/Rev. Draft Notification/2025 dated 20.02.2025.

In term of RBE 05/2024 circulated vide SER Estt. Srl No. 07/2024, it has been decided to conduct Selection through Centralized CBT for formation of panel of JE (Sig), L-6 (GP- Rs. 4200/-) against 40% Departmental Promotional Quota (DPQ) of Signal & Telecommunication Department to be conducted by HQ/GRC at Zonal level as per revised classification of post under schemes for filling up of vacancies consequent upon merger of grade stipulated under Estt. Srl No. 189/2009 (RBE No. 161/2009), 132/2009 (RBE No. 113/2009), RBE No. 21/2014 & RBE No. 20/2017. Accordingly, willingness/un-willingness are invited from the eligible employees as per eligibility criteria furnished at Para-2 below, in prescribed proforma. The details of the notification are furnished below:

1. Details of vacancies for JE(Sig), L-6 against 40% DPQ of S&T Department.

Community	UR	SC	ST	Total
No. of vacancies	03	00	00	03
Horizontal reservation of PwBD				
No. of Vacancies reserved for PwBD	Identified category of benchmark disabilities		Functional requirement	
	Not Applicable		Not Applicable	
Note-				
i. Reservation benefit/placement of category of benchmark disability (i.e. category " c") against reserved point No. 1 / 26 / 51 / 76, as the case may be, of horizontal reservation roster of PwBD shall be decided from the selected/qualified candidates of PwBD as per instructions communicated by HQ vide APO(Ruling)/GRC's letter No. SER/P-HQ/Ruling/0/963 dated 31.05.2024.				
ii. In terms of Para 9 of APO(Ruling)/GRC's letter No. SER/P-HQ/Ruling/0/963 dated 31.05.2024, if the PwBD candidate(s) are not available for promotion in this recruitment year/selection, same number of vacancies reserved for PwBD shall not be dispensed with and shall be added to the succeeding recruitment year, by way of carrying forward of reservation. PwBD vacancy shall not be kept unfilled and filled by the eligible & qualified candidates of respective category/community as per vertical reservation rules. In subsequent year, if vacancy arises, provision of PwBD reservation, which is unfilled in this recruitment year/selection shall be added and filled up, if eligible PwBD candidate becomes available for promotion.				

2. Eligibility and service conditions of staff:

- In terms of Estt. Srl No. 26/2014 (RBE No. 21/2014) all Sr. Technicians in Level-6 working in S&T Dept including who fulfill functional requirement of Post of JE(Sig) and whose minimum educational qualification is Matriculation or its equivalent are eligible to submit their willingness/un-willingness to appear at the above examination, are advised to submit willingness/un-willingness in prescribed Proforma enclosed at Annexure-A.
- If sufficient Senior Technicians at Level-6 (GP-Rs.4200/-) are unwilling to participate in the selection to the post of Junior Engineer(Sig), L-6, by giving unwillingness or adequate number of eligible Sr. Technician are not available, **only then** Technician-I in level-5 (GP-2800/-) working in S&T Department including who fulfill functional requirement of post of JE(Sig) with minimum education qualification is Matriculation or its equivalent & who have completed 02 years regular service as on date of notification may be made eligible for appearing in the selection as per Estt. Srl No. 26/2014 (RBE No. 21/2014) and as such Technician-I in level-5 (GP-2800/-) are also advised to submit their willingness/unwillingness in the prescribed proforma.
- The zone of Consideration for selection will be determined in the ratio of 1:3 basis (three times of above vacancies as per break-up of UR, SC, ST) according to seniority.
- In terms of CPO/GRC's Estt Srl No. 153/2006, the cut-off date for determining of the eligibility of the willing staff shall be the **date of issuance of Notification.**

3. Modified objective and scheme of examination:

The Selection shall consist of a Centralized Computer Based Test (CCBT) for one stage only comprising of only one paper with following set up:

- i. Single paper of 110 marks comprising of 100% Objective Type Multiple Choice Questions (CBT) with following distribution of marks.

Topics	Total Number of Questions	Marks
Technical (professional) subjects & Establishment Rules as per approved syllabus.	100 Questions	100
Official language policy & rules (Authority: Srl No. 03 of RBE 97/2019)	10 Questions	10

- a). Qualifying marks : 60 Marks out of 100
b). Duration : 90 minutes
- ii. Question paper will have 110 questions (100 questions for technical subjects & establishment rules + 10 questions mandatorily from official language policy & rules). Out of 110 questions, 100 questions are to be attempted.
- iii. Questions paper will be set in bilingual format (i.e. Hindi/English). In case any dispute/discrepancies in Hindi version, question of English version shall be treated as final.
- iv. In terms of RBE 194/2019, There shall be **No Negative marking** for incorrect answer as selection is against promotional quota and panel will be formed in order of seniority from those qualified.
- v. There will be a provision of Supplementary selection strictly following the guidelines laid down in para 11 of **Master circular 31 circulated vide Rly Bd's letter No. E(NG)/2019/PM 1/20 dated 19.12.2019.**
- vi. In terms of Srl. No. 03 of RBE 97/2019, if any candidate answers more than 100 questions, the first 100 attempted questions will be counted for evaluation.
- vii. Since, Centralized CBT is to be conducted by HQ, the marks secured by the candidates who will appear in CCBT shall be advised by HQ to respective Divisions/Units for completion of further process of Selection.

4. Mode of Selection:

- i. In terms of Para (10) of SER. Estt. Srl. No. 54/2024, after completion of CCBT, the further procedure of Selection will be completed by the constituted Department Promotional Committee (DPC) at Divisional/Workshop level.
- ii. The candidates have to obtain a minimum of 60% marks in Professional ability i.e. in written examination (CCBT), for being considered for further selection process of perusal of Service Records, APARs etc.
- iii. In terms of RBE No. 17/2014 the final panel will be made on order of their inter-se-seniority amongst those qualified who have secured 60% or more marks in professional ability as well as in aggregate.
- iv. The post of JE(Sig) being a "Safety category post", there will be no relaxation in qualifying marks (60%) in written examination (CCBT) to reserved Community employees as per Para 8(iii) of Master Circular - 31.
- v. The allotment of marks under various head for being placed on the panel as per Para 219 (g) of IREM Vol-I, (Reprint-2009) as under:

SN	Factor/Heads	Maximum marks	Qualifying marks
1	Professional ability	50	30
2	Record of service	30	--
3	Seniority	20	--
Total		100	60

- vi. In terms of CPO/GRC's letter No. P/R/14/314/3, dated 27.09.06, SER/P-HQ/Ruling /0/983 dated 23.03.2023 dated 06.04.2023, the marks under the heading "Record of service" is distributed as under:-

SN	Factor/Heads	Maximum marks
1	Educational Qualification	10
2	Entries in Service record (15 marks as per different heads of APARs and 5 marks as per Service Record) viz. Award/Punishment etc.	20
Total		30

The marks under the heading "Record of service" is distributed as under:-

- a. **APAR-15 marks:-** Maximum 15 marks will be allotted for APARs, whereby 5 marks Outstanding, 4 marks for Very Good, 03 marks for Good, 02 marks for Average and Unfit for Below Average for each of last 03 years APARs (Authority: PCPO/SER's Estt. Srl. No. 177/02 & 266/99 and CPO/GRC's letter No. P/6th PC/32/Pt-I dated 16.06.2011).
- b. **Service Record- 05 marks:-** As per SER Estt. Srl. No. 177/02 & 266/99 award and merit certificate for DRM (RSP)/PHOD(RSP)/GM(VRSP)/Rly Board level (AVRSP) in last 3 years, maximum 01 mark for each award/merit certificate will be taken. For major penalty during the 3 years under consideration, 01 mark to be deducted for each major penalty and ½ marks to be deducted for each minor penalty. The maximum marks under this heading should not exceed 05 marks.

Note: It is also instructed in SER Estt. Srl. No. 177/02 & 266/99, that the above are only guidelines and if necessary, depending upon the circumstances, the Members of the Committee are fully competent to lay down their own guidelines. However, if different guidelines are followed, the same should be spelt out and it shall be uniformly applied to all the candidates.

c) **Educational qualification 10 marks:-** The marks will be allotted as follows:-

Sl. No.	Education Qualification	Marks
1	Post Graduation/Master Degree & Higher	10
2	Degree in Engineering/ Graduation/ Hons. Degree	09
3	HS/10+2/Diploma	08
4	Matriculation/ 10 th Pass/ ITI	07
5	Below Matric	06

(Authority: As per PCPO/GRC's letter No. SER/P-HQ/Ruling/0/963 dtd.23.03.2023& 24.05.2023)

The "Service Record" will be assessed as per the entries available in the Service Register/Personal records with respect to the educational qualification, awards and punishment and based on the grading reported in the APARs.

d. **The Marks under "Seniority" is distributed as under:**

In terms of CPO/SER/GRC's letter No. P/R/14/314/3 dated 27.09.2006, the following distribution of marks are awarded in the column of seniority.

- Where there are 10 candidates or less called for selection, the senior most will have to be awarded 20 marks while the junior most should be awarded 10 marks and the candidates in between should be awarded marks on pro-rata basis.
 - Where there are more than 10 candidates called in a selection, the senior most will have to be awarded 20 marks while the junior most should be awarded 7.5 marks and the candidates in between should be awarded marks on pro-rata basis.
- vii. The assessment under "Professional Ability" will be based on the marks secured by the individual employee in the written examination (CCBT) held as part of selection.

5. **Syllabus:**

The syllabus prescribed for the examination has been approved by competent authority is enclosed as "Annexure-B"

6. **Pre-selection coaching:**

Pre-selection coaching is not required due to not available of SC/ST vacancies.

7. **Date of submission of application and consolidated statement:**

Applicants fulfilling the above conditions as on 21.02.2025 as detailed above, should submit applications within the target date, vide Para-(8) below.

8. **Important timelines:**

01	Tentative last date of receiving option	10.03.2025
02	Tentative last date of counter signed by Department	13.03.2025
03	Tentative last date of service particular verification	14.03.2025
04	Tentative date of issue provisional eligibility list	18.03.2025
05	Tentative date of issue final eligibility list after finalization of representation, if any	24.03.2025
06	Tentative date of pre-selection coaching start w.e.f.	28.03.2025
07	Tentative target date of completion of pre-selection coaching	22.04.2025

9. **Notifying to the staff:**

In terms of Railway Board's Letter No. E(NG)I-72/PMI/166 dated 06.06.1972 the Senior Subordinate/Supervisor concerned has to furnish a certificate that "the eligible candidates were duly notified the holding of the selection/examination and asked to submit their applications giving willingness in writing" and forward the same to concerned Personnel Dept. of the Divisions/Units. It should 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 of the selection should invariably be intimated to all the eligible candidates. This is also being uploaded on www.ser.indianrailways.gov.in → Division→Department→Personnel. Candidates have to check the website regularly for further any updates.

10. **The examination centre:**

The examination centre may be outstation of working Division/Unit and the applicants will have to appear CBT examination as per their allotted city/town/centre. No change of CCBT centre shall be entertained from any applicant and CCBT shall be conducted by a contracted agency outside of Railways.

11. **Medical classification & Medical Examination:**

The post of JE(Sig) is classified under Medical category A-3, hence eligible candidates of S&T department whose present medical standard is below than A-3 or who has attained 45 years of age and PME is due after attaining 45 years of age shall be sent for medical examination just after declaration of result of CCBT in terms of Para-514(b) of IRMM Vol-I for passing medical standard of A-3, if they are declared qualified in written examination(CCBT).

12. **Mandatory Promotional Courses Training:**

Candidates empanelled for promotion to the post of JE (Sig) should pass promotional training course of JE(Sig) which is mandatory before being promoted as JE(Sig) as per extant rules in vogue.

13. **Last date for submission of application:**

The willing and eligible candidates have to submit their application in the prescribed proforma enclosed at Annexure-A to their controlling supervisor on or before 10/03/2025 who will forward the applications in one bunch to the Controlling Officer after scrutiny so as to reach on or before 11/03/2025. The controlling officer has to forward the same in one bunch to Sr. DPO/KGP on or before 13.03.2025. If no applications are received within the stipulated time, the controlling officer need to forward a "Nil figure certificate" to the Sr. DPO/KGP.


The applications in piece meal manner and which are incomplete or received after the last date will be rejected without assigning any reason.

14. **Other information:**

At any stage of selection, if any staff candidature is found to be defective or not as per extant rules, his/her candidature will be cancelled thereof. Thus, mere calling or being eligible provisionally for the selection does not confer any right to them for such promotion. The administration also reserves the right to cancel the notification/notified vacancies at its discretion, if any discrepancies are found at any stage and such decision will be final and binding on all.

Wide publicity may please be given it amongst eligible categories of staff. A copy of this notification may also be displayed on the notice boards and Divisional/Unit websites.

Encl: i) Application Proforma (**Annexure-A**)
ii) Syllabus (**Annexure-B**)


Asstt. Personnel Officer-II
for Sr. Divl. Personnel Officer
S. E. Railway, Kharagpur

**Proforma for Willingness/Un-willingness for the post of JE(Sig), L-6 against 40% DPO in S&T Department of
Kharagpur Division.**

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Signature of the candidate

Recent colour
photograph

01.	Whether Willingness or Un-willingness: (To be specifically mentioned)			
02.	Name (In Block Letters)			
03.	Designation & Station	Substantive:		
		Officiating:	From:	To:
04.	Pay Matrix Level			
05.	Employee No.		HRMS ID:	
06.	Date of Birth			
07.	Date of Initial Appointment and post:			
08.	Date of Regular Promotion as Sr. Tech:			
09.	Date of Regular Promotion as Tech Gr. I:			
10.	Educational & Technical Qualification as per entry made in Service Record:			
11.	Caste/Community:			
12.	Whether belongs to PwBD (Yes/No), if yes, mention details and attach relevant documents.			
13.	Mobile No (Personal):		CUG:	
14.	E-Mail Id:			

I, the undersigned hereby declare that the particulars furnished above are correct and true to the best of my knowledge. I would be liable for punishment under D&A Rule if the aforesaid information is proved to be false and my candidature will be summarily rejected.

Date:
Station:

Signature of Applicant

(Instruction: Signature and date both are compulsory, otherwise application will be rejected.)

For use of the controlling Supervisor of the employee)

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

The application is forwarded to Sr. DSTE/Co/KGP for further necessary action please.

Signature with stamp of Controlling Officer/Supervisor

Date:
Station:
Office Seal:

(For use of the controlling Officer of the employee)

Forwarded the applicant of Sri/Smt/Ms _____ to Sr. DPO/KGP for further necessary action:

1. Verified and countersigned.
2. Certified that there are no DAR cases pending against the concerned staff.

(In case any DAR cases is pending against the above staff, the details may kindly be indicated)

Signature with stamp of Controlling Officer with
Designation & Seal

Date: _____

(For use of the Concerned Personnel Dept. Officer of the employee)

Certified and verified the particulars as mentioned in the application with available official records viz. Service Record, P/File etc.

Signature of the concerned Personnel Dept. officer with stamp

Date: _____



SOUTH EASTERN RAILWAY

SYLLABUS FOR SELECTION OF JE (SIGNAL) AGAINST 40% DPQ Quota

(1) BASICS OF SIGNAL ENGINEERING

Signalling Concepts, Fixed Signals, Aspects & Indications, Subsidiary Signals, Repeaters, Indicators, Markers & Back Lights, Overlaps, Sighting Distance & Visibility, Classification of Stations- Comparison of A,B & C, Standards of Interlocking Signals, Isolation, Simultaneous Reception and Dispatch of Trains, Systems of working (absolute, automatic etc), Operation of Points, Level Crossing Gates, Principles of Signal Engineering. Schedule of Dimension

(2) PRINCIPLES OF INTERLOCKING

Introduction to Interlocking, Essentials of Interlocking.

(3) SIGNALLING IN 25 KV AC ELECTRIFIED SECTION

Introduction to OHE system, Signal clearance and visibility, earthing arrangements, laying of Signalling cables, block instruments and block circuits, alterations to track circuits, personnel safety in 25 KV AC. Bonding plan: Series and parallel, Traction Bonds, Measurement of induced voltage and current, Glow voltage and length of parallelism, Laying of signalling cables near TRD stations and structures.

(4) POWER SUPPLY FOR SIGNALLING

Secondary Cells, Low Maintenance Lead Acid Cells, VRLA, Battery Chargers, Integrated Power Supply System, Auto-changeover, Power supply arrangement in MEDHA, ANSALDO, KYOSAN and WESTRACE EI, MSDAC power supply arrangements for CEL, ELDYNE, FRAUSHER, SIEMENS, Class B and C protection for EI and MSDAC/SSDAC/ HASSDAC etc. Power Supply Load Calculation, IPS arrangement, FUSE ratings, POWER cables copper and aluminium, Rating of components of IPS.

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(5) COLOUR LIGHT & AUTOMATIC SIGNALLING

Multiple Unit Colour Light Signal, Signal Indication Circuits, Signal Aspect Control Circuit, Horizontal and Vertical Cascading, Inner Distant Signal, Automatic Colour Light Signalling, LED Signal Units, Markers: A, AG, G. P. C.R etc.

(6) RELAY INTERLOCKING (BRITISH)

Introduction to Relay Interlocking, Sequence of operation on Panel, Signalling Plan-Control Table, Nomenclature of Relays and Circuits. Introduction to RRI system, Route setting sequence, Normal Route release sequence, Emergency Route Release sequence, Super Emergency Route release sequence, Sectional route release, Track locking, Indication locking, Back locking, Dead approach locking. LC gate: Approach locking. Emergency gate release, Electrical lifting barrier, Inter cabin slotting

(7) ELECTRONIC INTERLOCKING

Introduction to Electronic interlocking, MICROLOK-II, Westrace Mark-II, Medha, KYSON, EI System. Card acronyms and functions, Networking serial port RS-232, RS485, Interface with datalogger and MSDAC. Hot standby, Warm Standby and Cold standby configurations, Software and hardware redundancy, CRC and checksum, Site acceptance test and Factory acceptance tests, simulation setup board 1 and board Interface circuits, Panel processor, Dual VDU, PANEL + VDU, Emergency Crank handle release.

(8) SIGNALLING RELAYS AND CABLES

Introduction, Signalling Relays, Plug in Type DC Line Relays (Metal-Carbon contracts), Plug in Type DC Line Relays Lamp LED ECR Relays, Time Element Relays, Plug in Type Relays, Slow Acting Relays(pick up and drop), DC Polar Relay, Latch relays, Signalling Cables(color coding and cable parameters and tests), Relay name and function, characteristic.

(9) ELECTRONIC POINT MACHINE & SIGNAL MACHINE

Introduction to Power Operation of Points, IRS Rotary Electric Point Machine, Thick web point machine, Electrical point detector. Point circuit for series operation and parallel operation.

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(10) BLOCK INSTRUMENTS

Introduction to different type of block instruments used for single line (TLBI) & Single line block panel & DLBI & double line block Panel, UFSBI, Detailed Circuit Description, Method of Operation and Failure rectification, BPAC (deltron, webfil) for single line and double line

(11) INTERMEDIATE BLOCK SIGNALLING

Intermediate Block Signalling, Axle Counter Block working, Block Proving Axle Counter with Block Instrument (BPAC), LVCD, IB circuit on UFSBI.

(12) TRAIN DETECTION-TRACK CIRCUITS

Introduction, D.C. Track Circuits, Insulated Rail Joints & Maintenance, Track Circuit Bonding,, Axle Counter System-Introduction, Universal Axle Counter System, Single Section Digital Axle Counter (GGTRONICS, CEL LDYNE), High availability Single Section Digital Axle Counter HASSDAC (GGTRONICS, CEL), Multi Section Digital Axle Counter MSDAC(CEL, ELDYNE, SIEMENS,FRAUSCHER), Auto reset circuits for all combination of SSDAC

(13) DATA LOGGER

Data logger Introduction, advantages of Data Logger, COMMON EQUIPMENT FOR ALL DATA LOGGERS Networking of Data Logger, RTU, FEP, Simulation, Fault logics and data validation.

(14) SURGE PROTECTION DEVICES AND LIGHTENING AND EARTHING PROTECTION

CLASS A, B&C, C protection for power supply of IPS, EL, SSDAC/MSDAC/HASSDAC and for data channels, PPTC fuses for track circuits, Maintenance free earth, Copper plate earth, Ring earth.

(15) RAJBHASA

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