



SOUTH CENTRAL RAILWAY

Headquarters Office,
Personnel Branch,
Secunderabad,
Dt: 03.01.2025

No.SCR/P-HQ/210 (a)/EN/Signal&Tele Inst/Vol.III

NOTIFICATION

Sub: - Selection to the ex-cadre post of Instructor/ Signal in GP.4200/ Level -6 in 7th PC Pay Matrix, at STTC/MLY of S&T Department.

Applications are invited from serving permanent Railway employees of South Central Railway for selection to the ex-cadre post of Instructor/ Signal in (GP.4200) Level-6 in 7th PC Pay Matrix at STTC/MLY.

1	No. of vacancies	03 (Three) No reservation is applicable as it is an ex-cadre post
2	Level in (7 th CPC Pay Matrix)	Level- 6 of 7 th CPC Pay Matrix Grade Pay [(GP.4200/- Substantive)]. (MACPS) granted as financial upgradation will not be reckoned.
3	Tenure	Minimum 2 (Two) years and Maximun 5 (Five) years in the training institutes. .(As per RBE No.04/2021 & PCPO/SC S.C. No.11/2021)
4	Age Limit	In terms of Railway Board's Lr.No.E(MPP)2023/3/6 dated:104/2023(RBE.No.104/2023) Upper age limit as on the date of Notification should be 58 years .
5	<u>Eligibility conditions</u>	In terms of Railway Board's Lr.No.E(NG)/I/2017/PM 1/11dated 13/05/2019 (RBE No.79/2019) Selection of Instructors should be from identical grades only. Junior Engineers/Signal and Sr.Technicians in S&T Department who are working in GP. 4200/ level- 6 in 7 th PC pay matrix on regular basis with 2 years of service in cadre as mentioned above, are eligible. Employees worked/ earlier in ex-cadre posts are eligible to apply only after working for a period of one year in their cadre post (parent cadre) in terms of instructions contained in this office Lr.No.P(R)529/I, dated 13/11/1990 and CPO's S.C.No.74/1998. Employee who had previously worked as Instructor at STTC/MLY are eligible to apply only after a gap of one year from the date of joining in their parent department on repatriation.
6	Other conditions	Applicant should have good training capacity, academic background, practical experience in teaching and capacity to prepare course material. Applicant should be good communicator, sensitive to the need of people, resilient, open-minded, perceptive, honest, committed and motivated. Selected employees will not normally be allowed to decline the post. Employees selected as Instructor in the same grade are not allowed for additional increment, but are allowed Teaching Allowance wherever admissible. The employee posted as Instructor will be repatriated to his/her parent Division at least six months prior to his/her date of superannuation. Employee selected as Instructor will be repatriated to their parent cadre in case their performance is not satisfactory as evaluated by Principal of STTC/MLY during the period of their working at STTC/MLY, irrespective of the tenure period rendered and without any further notice.
	Mode of selection	In terms of Railway Board's Lr.No.E(NG)/I/2017/PM 1/11dated 13/05/2019 (RBE No.79/2019) the selection process is Written test (75 marks) and Classroom lecture trial (25 marks) . Maximum Marks -100 and Qualifying marks – 60 % . In terms of Railway Board's Lr.No.E(NG)/I/2018/PM14, dated 14/12/2018 (RBE No.196/2018) circulated as PCPO's S.C.No.212/2018, the question paper will henceforth be 100% Objective type.

Signature
3/1/2025

		<p>All questions will be of multiple choice only. The examination will be in Pen and paper mode. To ensure authenticity of the answers, cuttings, over-writings, erasing or alterations of any type in the answer will not be accepted. Zero marks will be given for answer having correction/overwriting. There shall be negative marks for incorrect answers. One third of the marks allotted for each question will be deducted for wrong answers. As per Railway Board's Lr.No.E(NG)/I/2017/PM 1/11dated 22/05/2020 (RBE No.39/2020) Panel will be drawn strictly as per over-all merit to the extent of the vacancies notified.</p> <p>Employees who secure not less than 60% of marks in the written test (professional ability) will be called for class room lecture trial before the selection committee which carries 25 marks. Final panel should be drawn in the order of Merit from amongst those who secure a minimum of 60% marks in the written test (professional ability) and 60% marks in the aggregate. (RBE No. 39/2020) (PCPO's SC No.52/2020).</p> <p>There will be no Supplementary Written examination [As per Railway Board's Lr.No.E(NG)/I/2017/PM 1/11dated 13/05/2019 (RBE No.79/2019), there is no Viva-voce. No relaxation /reservation for SC/ST employees.</p> <p>The instructions contained in PCPO's S.C.No.16/1993 regarding cases of Suspension/DAR/Vig etc., are applicable.</p>
8	Syllabus	Enclosed as Annexure-I
9	Application form	Enclosed Annexure-II Full care should be taken while filling up application form. In complete application form will be rejected.
10	How to apply	Applicants should fill the Application form after thoroughly reading the eligibility/other conditions/Syllabus and submit the filled in applications form to the Controlling officer. Any act of wrong or misleading information will be taken up under DAR.
11	Last date for submission of application	24.01.2025 to controlling officer.
12	Forwarding of application by units	The controlling officer should send the application to the respective Personnel Officer of the Divn./HQrs by 28.01.2025 . The Divisional Personnel officer should verify the correctness of the particulars furnished by the employee in the application with the respective SR and forward only the eligible applications to the APO/IR in CPO/O/SC, Rail Nilayam, SC on or before 31. 01.2025 through special messenger. Application received after due date will not be accepted.
13	Teaching Allowance	12% of Basic Pay (as per Board's letter No.E(MPP)2012/3/28, dated 06.10.2017.
14	Pattern of Examination	100% objective as per Board's latest instructions. For model Objective Questions visit website www.scr.indianrailways.gov.in Personnel Department Question Bank.

The applications received from the employees directly in PCPO's Office without certification by the concerned Personnel Officers will be rejected. No application will be entertained after the last date irrespective of any reasons.

The applicants may also visit Website www.scr.indianrailways.gov.in for Notification, Syllabus and Application form, and Question Bank. Application without proper certification from the respective cadre personnel officers will be rejected.

The above notification may be given wide publicity among all the eligible employees.

Encl: Annexure I & II.

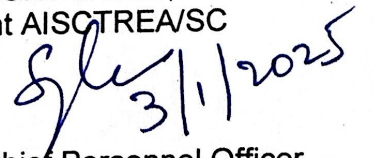
Note: As regards the Question Bank, it will be placed shortly in website. www.scr.indianrailways.gov.in.



(Sk. Peer Babu)
APO/IR

for Principal Chief Personnel Officer.

C/-: PCSTE, CSE-I, Principal/STTC/MLY,
DRMs/P/SC, HYB, BZA, GTL, GNT & NED, Sr. DSTES/ SC, HYB, BZA, GTL, GNT & NED,
GS/SCRE Sangh, GS/SCRM Union, GS/SCROBCREA & Zonal President AISCTREA/SC



for Principal Chief Personnel Officer

Application for the ex-cadre post of Instructor/ Signal in GP. 4200/Level - 6 in Pay matrix.

S.No	Particulars	
1	Name (in Block letters)	
2	Father's Name (in Block letters)	
3	Present Designation (mention if Ad-hoc)	
4	Present grade pay (Substantive) as on the date of notification Grade Pay granted on MACPS will not be reckoned.	
5	Division & Station	
6	Date of Birth	
7	Date of Appointment	
8	Community	
9	P.F.Number & HRMS ID	
10	Age as on the date of notification	
11	Date of entry into Present Level (only regular) MACPS will not be counted to determine the eligibility	
12	Educational qualification (Academic) PG/Degree/Year/ University (copy of provisional/original certificate. certificates to be attached, self attested with date. No Marks list will be allowed) in place of Provisionals/Originals.	
13	Additional Qualification	
14	Details of teaching experience if any (If worked previously details of Institution and faculty)	
15	Whether previously worked as Instructor at STTC/MLY or any other ex-cadre post. If so details thereof Period of working/Place of working. Date of reporting to the parent cadre on repatriation	
16	List of enclosures	
17	Mobile No. and E.Mail ID (If any)	

I declare that the particulars furnished above are correct and true, I am liable for DAR action for major penalty if the same are found to be false or fabricated.

Date:

Station:

Signature of the employee

The above particulars are verified and found correct. -----

Signature of the Controlling Officer
Name & Designation
Station & Date

South Central Railway

No:

Office

Date:

Ref :- SCR/P-HQ/210/EM/STC/WS Instructors/Vol.V

Date:-03.01.2025

Forwarded to APO/IR, office of the Principal Chief Personnel Officer, IV Floor, Rail Nilayam, South Central Railway, Secunderabad. The particulars of the above named employee against S.No.1 to 15 are verified with relevant SR and found correct. The above level is granted on regular basis & not on account of grant of MACPS.

Certified that there are no DAR/Vig./SPE cases against Shri.....

Office Seal:

Signature of the Personnel Officer

Shri
13/1/2025

SYLLABUS FOR SELECTION TO THE POST OF INSTRUCTORS (SIGNAL).

SSE & JE SIGNAL IN S&T DEPARTMENT.

X9

I. SIGNALLING IN GENERAL

1. Basic concept of Signalling, Types of signals, Principles of Interlocking, preparation Signal Interlocking Plans, Route holding principles, Table of Control, Numbering.
2. Colour light signal concepts, signalling elements – Relays, various types of signals and their use.
3. Isolation: classification of stations and standards of interlocking, means of isolation, overlaps and humps etc. Braking distance.
4. Selection Circuits and RDSO Approved control table. Principles of slotting etc.
5. Relay interlocking concepts, metal to carbon and metal to metal relays. Panel interlocking
6. Colour light signals and lamp proving arrangements.
7. Points and Layouts, Facing & Trailing points, Turnouts etc.

II. ELECTRICAL SIGNALING

1. LED Signals and different aspects advantages, regulators and their operating parameters etc
2. DC and AC Track circuits, their components and use of AC and DC track circuits and their adjustments.
3. Axle counter, SSDAC, HASSDAC & MSDAC and their applications.
4. Electric key transmitter. Lever lock circuit controllers, KLCR.
5. Signalling cables, power cables, wire coils etc.
6. Electric point machines and their working. Thick Web Switch lay outs, point and crossovers etc.
7. Route relay Interlocking - Siemens, British (RRI). Sub Route release, Sectional route release, etc.
8. Earthing, lightning and surge protection arrangements for signalling equipment.
9. Earth Leakage Detectors.
10. Data loggers and Salient features, Front end processors, Networking managements of Datalogger.
11. Execution of S&T Infrastructures works, CRS Sanction, Documentation, Testing and commissioning.

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1. Principles of Block working,SGE Double line Block Instrument.
2. Daido Block Instrument, Block clearance circuits etc.
3. UFSBI working with block proving axle counters -Single line/Double line.
4. IntermediateBlockSignalling working principles etc

IV.MODERN SIGNALLING

1. Electronic interlocking, EI Principles. Configuration, Interface Logic, Application Logic, VDU Concept. FAT,SAT,Square sheet Testing etc, Technical System Application Approval, RDSO TAN.
2. KAVACH (Train collision Avoidance system): Overview, system of working, components of Kavach, RFID, locomotive component etc
3. Automatic Block Signalling (ABS) - Single line, Double line. Advantages, Semi-automatic signals. Various schemes for ABS implementation. Failure attention in ABS territory.
4. UFSBI with Block proving axle counters.
5. Train warning system(TWS),Automatic warning system(AWS),European train control system(ETCS). Centralized traffic control(CTS),Train management system (TMS).
6. Automatic Fire Detection & Alarm System, Automatic Fire Suppression Systems.

V.POWER SUPPLY

1. IPS(Integrated power supply),SMPS, Rectifiers, Transformers, DC-DC Converters.
2. Batteries, LMLACells,VRLA Cells. Initial charging of cells, Retentivity test.
3. Generators and their maintenance,CLS Panels.AT supply to signalling equipment etc.

VI. LEVEL CROSSING GATES

1. Classification of gates,manned,unmanned,communication arrangements etc.
2. Mechanically operated lifting barriers and wire and rod transmission for operation of MOLB.
3. Electrically operated lifting barriers and their operating characteristics etc.
4. Sliding booms and interlocking, road signals, hooters,warnings etc.

VII.SIGNALLING in 25KV ELECTRIFICATION

1. Signalling installations in RE area. Infringement of signals , Implantation of OHE masts.
2. Electric clearance, visibility, induction effects return currentsetc.


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3. Installations of cables in RE area and earthing of equipments.
4. Single Rail track circuit installation, Track Bonding etc
5. Block signalling in RE area and protection of staff

VIII.SOTRES/FINANCIAL RULES/ESTABLISHMENT MATTERS.

1. Imprest stores consumable stores-dead stock tools and plants maintenance of stores registers-return of stores preparation of indents, loss and theft of stores, stock verification, Vigilanceetc.
2. Cannons of Financial Propriety, Railway Budget, Demand of grants, Classification of expenditure, ResponsibilityAccounting, worksprogramme, financial control on stores,Government e-Market(GeM), etc.
3. HOER hours of work and period rules' Trade test, LeaveRules, PassRules, Advances in Railways.
4. Railway servants (Discipline& Appeal) Rules,1968 and related instructions. The Railway Service (Conduct) Rules,1966 and related instructions. Retirement benefits, qualifying service,pension, family pension, commutationgratuity, NewPension Scheme. Staff welfare, SBF,Railway Institutes, EX-Gratia payment.
5. Workmen compensation Act.
6. Payment wages Act.

IX.OFFICIAL LANGUAGE

Official Language policy,Act.Rules,Incentives Schemes etc. and Rules.Rajyabasha.

X. CODES & MANUAL

General and Subsidiary rules(G&SR),SignalEngineering Manual(SEM)& Schedule of Dimensions(SOD),Block working Manual,Accident Manual etc.


AS7K/SG/H
24/12/2019