



दक्षिणरेलवे / SOUTHERN RAILWAY

प्रधानकार्यालय/Headquarters Office
कार्मिकशाखा/Personnel Branch
चेन्नै/CHENNAI - 600 003

No. SR-HQ0HR(ELEC)/4/2021 Computer No:144398

Dated : 24.12.2025.

Sr.DPO/MAS TPJ MDU PGT & TVC
Dy.CPO/CW/PER Dy.CPO/WS/GOC
Dy.CPO/CN/MS & Proj./SR/MAS
DPO/SA APO/S&WS/PER

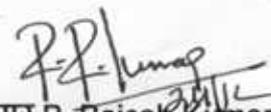
Sub : Selection to the post of **2 (Two) Senior Instructors / TRS [Ex-Cadre]** in Pay Matrix Level-7 [GP Rs.4600] at ZETTC/ AVD.

Ref :- This office notification of even no dated 22.12.2025

Further to this office Notification cited above, the Personnel Branch Website mentioned in Para (i) & (ii) of General Instructions may be read as

" <https://southernrailway.gov.in/srhqpb/home/NGaz>" instead of

" <https://nofications.srhqpb.in>"


(आर.राजेश कुमार R. Rajesh Kumar)
सहायक कार्मिक अधिकारी
Assistant Personnel Officer/T,M&E



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Sub : Selection to the post of **2 (Two) Senior Instructors / TRS [Ex-Cadre]** in Pay Matrix Level-7 [GP Rs.4600] at ZETTC/ AVD.

It is proposed to conduct a selection for filling up the "**2 (Two)**" vacancies of **Senior Instructor / TRS [Ex-cadre post]** in Pay Matrix Level-7 [GP Rs.4600] at ZETTC/AVD by calling for volunteers from the category of SSE/TRS (Pay Matrix Level-7 [GP Rs.4600] and JE/TRS (Pay Matrix Level -6 [Grade Pay Rs.4200] of 7th CPC Pay Matrix.

ELIGIBILITY CRITERIA :

Educational Qualification	B.E / B. Tech / AMIE / Diploma in Electrical / Electrical and Electronics / Electronics / Electronics & Communication Engg. / Electronics and Instrumentation / Mechanical Engg.
Eligible staff from Electrical (TRS) Department	The post will be filled up on Zonal Railway basis by the volunteers from the following staff working in Electrical TRS Department. In the same grade i.e. Senior Section Engineer (TRS) in PML-7 / Grade Pay Rs.4600/- If staff in identical Grade Pay Rs.4600/- are not available, then Junior Engineers / TRS in PML-6 (Grade Pay Rs.4200/-) will be considered. (RBE 79/2019 dated 13.05.2019)
Experience	Minimum 3 years of experience in Electrical (TRS) Department.
Age Limit	58 years on the date of notification (RBE No.104/2023 dated 04.09.2023)
Tenure	5 (five) years. > On completion of the prescribed tenure, the incumbent will be repatriated to his / her parent cadre (RBE No.104/2023 dated 04.09.2023)
Other Conditions	In terms of PBC No.116/2023 dated 02.06.2023, a minimum cooling off period of two years is mandatory for consideration of an employee in one ex-cadre for posting to another ex-cadre post. Employees working in an ex-cadre post can be considered for another ex - cadre post subject to the condition that "the total period of tenure in such ex-cadre posts taken together shall not exceed five years in total".

[Signature]
22/12

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SELECTION PROCEDURE.

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- i) 100% objective type Written Examination with negative marking followed by Class Room Trial in respect of qualified candidates in the Written Examination.
- ii) In terms of PBC No. 263/2018 and 46/2019, the Written Examination shall comprise of 100 Objective Type multiple choice questions.
- iii) In terms of PBC 264/2019, there shall be negative marking @ 1/3rd mark reduced for every wrong answer.
- iv) Selection will be based on merit as per the instructions contained in RBE No.4/2020 read with RBE No.39/2020.
- v) In terms of Railway Board's letter No.Hindi/ 87/OL/ 1/10/3 dated 03.11.1988, there will be questions in Official Language Policy & Rules for atleast 10% of the total marks prescribed which is optional

GENERAL INSTRUCTIONS :

- i) Applications should be submitted through online mode only from 02.01.2026- to 23.01.2026 <https://nofiications.srhqpb.in> duly adhering to the procedures and instructions envisaged in PBC No.150/2022 dated 30.08.2022.
(a) Application opening date : 02.01.2026.
(b) Application closing date : 23.01.2026.....
- ii) The link for the notification along with instructions / application form will be made available from 02.01.2026 in the Personnel Branch notification website at <https://nofiications.srhqpb.in> and also, in the Railnet website of Southern Railway.
- iii) The employees willing to apply for the above selection have to submit their applications through the above mentioned website in online mode only. Applications received from any other mode will be summarily rejected.
- iv) The employees should upload the requisite documents in the above mentioned website in PDF format as a single file only.
- v) After submission of the application by the employee, Cadre Personnel Officer will download the application and certify the correctness of the application and upload it for further processing at HQ.
- vi) The specimen 'Application Form' along with 'Syllabus' are annexed herewith for information to the applicants.
- vii) If there are no volunteers for the proposed selection of Instructor (TRS), then the Cadre Controlling Officer/Personnel Officer concerned shall send a 'NIL' report on or before 28.01.2026 through e.office certainly to avoid delay in processing of the selections.
- viii) Wide publicity may be given to this letter, duly exhibiting in the office notice boards for information of all staff concerned.
- ix) In case if any data given by the employee is found to be incorrect or false at a later date, disciplinary action will be initiated under D&A Rules against him / her.
- x) The responsibility of verifying the eligibility of the staff to participate in the selection vests with the respective Personnel Branch forwarding the application and it shall be ensured by the respective Personnel Branch Units / Divisions that application of eligible candidates only are forwarded.

Encl.: Syllabus – A.I

(R. Rajesh Kumar)

सहायक कार्मिक अधिकारी

Assistant Personnel Officer/T,M&E

Copy to : PCEE CELE CEGE – For kind information please.
Principal of ZETTC/AVD Sr.DEE/OP/MAS
Sr.DEE/RS/AVD RPM VLCY TBM AJJ
Sr.DEE/RS/ED :

SOUTHERN RAILWAY
SYLLABUS FOR THE POST OF SENIOR INSTRUCTOR / TRS [EX-CADRE]
AT ZETTC / AVD IN PAY MATRIX LEVEL "7" OF 7TH CPC [GP RS.4600/-]

General Electrical and Electronics

Fundamentals of electricity- voltage-current- resistance and their measuring units and instruments to measure them-Ohms law- calculation of V,I,R in the circuit- energy – watt-electrical unit. Electrical symbols, kirchoffs current and voltage laws, effects of electric current- Basic Properties of electrical materials- conductors- semi-conductors-insulators-Electronic devices such as diodes, application of diode, transistors, thyristor, GTO's, IGBT handling of electronic cards.

Basic principle and characteristics of DC motors and 3phase Induction Motors

TRD- power supply system

Basic knowledge on OHE power supply arrangements and equipment's at traction sub stations, switching stations. (Sectioning and paralleling posts, sub sectioning posts) Remote control and communication facilities in electrified section.

Type of Neutral sections, overlap type section insulator type and PTFE type neutral section- Working of Traction power control-Power blocks and permit to work, protection measures for power block, safety precautions in electrified section, movement of O.D.O in electrified section, stagger of OHE, ATD, Cantilever assembly parts.

Electric locomotives (conventional and 3phase);

Types of electric locos- technical data – maintenance schedule- periodicity of all types of locos.

Working principle and maintenance of various types of Relays- EP contactors-Reversers-Inversers-switches-interlocks-tap changer-vacuum circuit breaker-Transformer- smoothing reactor- Master controller etc- knowledge of AC loco control circuits, purpose of batteries-New generation equipment in loco-Static converter (SIV)- Microprocessor control and diagnostic system (MPFDCS)-Energy cum speed monitoring systems (ESMON/SPM), Vigilance control device(VCD)- working and maintenance procedure-common defects noticed and trouble shooting techniques-data downloading-analysis of downloaded data, knowledge of AC loco feeding circuits, its parts and purpose of each equipment-Rectification of AC-DC, DC traction motors – current ratings, reversers- purpose of reversers. Isolation of defective traction motors-procedure. Various safety relays such as Earth fault relays QOP, over current relay QLM, etc-functioning-isolation- fuses-renewal-operation of 110 BA-panto-DJ, Tap changer and other control circuits- Defects in control circuits-working of headlight and flash light circuit-Special features and advantages of 3phase locomotives over conventional locomotive-3phase locomotives power and auxiliary circuits. Various equipment's in machine room and under frame. Traction converter (SR)-Auxiliary converter (Bur)-vehicle control unit (VCU)-transformer-MCB's- various electronic cards and their functions, detection of defects- trouble shooting tips. 3 phase traction motors and name plate parameters. E70 brake systems.

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EMU/MEMU

Concept of EMU/MEMU trains-Variety types of EMU/MEMU stock-Conventional/3 phase EMUs & MEMUs and their salient features-Different types of brakes -Power circuits, auxiliary, control circuits of conventional EMU/MEMUs-Mechanical components and its functions-Different electrical equipment and its functions-Inspection/Maintenance/Overhauling schedules-Safety precautions and fire prevention -Salient features of 3Phase EMUs/MEMUs-Basic power circuits of 3Phase EMU/MEMU-Train Control Management System (TCMS)-Recent developments in EMU/MEMU-TPWS, Air drier & parking brake systems-Advantages of under slung MEMUs-Emergency talk back system- Regenerative braking, Cruise control, ENS operation, Holding Brakes in 3phase EMUs/MEMUs.

Pneumatic Circuits

Knowledge of pneumatic brake system- equipment's and their purpose-cut out cocks and drain cocks and their purpose and location. Pneumatic equipment air brake system working - handling and maintenance of A9, SA9, C2 relay valves, C3W or distributor valves etc.

Air flow measuring valves safety valves, air driers, pantograph- trouble shooting techniques etc. E70 brake system, CCB pneumatic brake system in 3phase locomotives.

Bogies

Bogie of different locos/ EMU/MEMU-construction, suspension arrangement, brake, wheel and axle-axle boxes maintenance practices- ultrasonic testing of axle-TM shafts etc- cattle guards- CBC and its parts-maintenance practices. Weight distribution of AC loco- brake rigging arrangement including TBU/PBU- transmission of BE and TE- function of dampers, springs, side bearer, traction links etc- motor suspension arrangement- negative point system for Co-Co trimount bogie.

TRS organisation

Rolling stock organisation and works carried out in different sections, organisation setup. Standard layout of loco shed for holding 100 locos and 200 locos suggested by RDSO.

Trouble shooting

Knowledge of defects on conventional and 3 phase electric AC locos- procedure of trouble shooting- method of identifying the trouble- reason and remedy of each trouble.

Material Management

Material handling and storage of various types of materials including rubber items- Procurement of stores- stocked items-non-stock items-scrap disposal-AAC-condemnation of assets etc.

Disaster Management (DM)

DM policy, Zonal/ Divisional railway setup and responsibilities.

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Seasonal precautions

Summer and Monsoon preparedness and special maintenance precautions.

RDSO MS, SMIs and TC's

Knowledge of modification sheets, special maintenance instructions, technical circulars issued by RDSO from time to time.

Energy Conservation

Importance of energy conservation- measures for energy conservation to be taken during operation and maintenance of locos.

Monitoring of AC locos and Drivers

Capacity to monitor the locos and counselling of LPs and ALPs on running trains-knowledge to create problems on AC locos to check the trouble shooting knowledge of LPs/ALPs. Various statistics of loco operation

Analysis of failures

Finding of cause of failure -remedial measures-knowledge of various modifications- special maintenance instructions and technical circulars issued by RDSO by time to time.

Basic material engineering

Types of steels and their properties

Types of Magnetic materials

Types of Insulating materials

Polymers and their application as engineering materials

iii) Various methods of Heat treatment

Types of Conducting materials

Types of low and high Resistivity materials

Maintenance practices

Predictive and preventive maintenance

Condition monitoring

DGA, surge test, tan E, PI as a tool of condition monitoring

Different types of bearings and their applications

Vocabulary and abilities

Fluency to speak in English, using appropriate technical words to express the correct meaning- knowledge of other local languages like Tamil/Telugu/Malayalam/Hindi to educate the TRS maintenance and running staff of less literacy- knowledge to draw electrical, pneumatic circuits and mechanical diagrams on black boards- preparation of important circuits. Operating knowledge of Dish tv-VCR-computer knowledge of videography to fill-the video tapes on AC locos.

Working knowledge of computer will be desired.

Character

Aptitude to teach the TRS maintenance and Running staff and supervisors, maintaining self-discipline and good habits-cool temperaments and capability to handle any situation- ability to control all sorts of trainees also with cool and gentle way-ability to judging the trainee's behaviour and keeping a good watch out- gentle and soft speaking attitude. Teaching suitable way of approaching to officers.

General activities

Knowledge to organise seminars and meetings- assembling of trainees for seminars- capable to deliver speech during meetings/seminars. Educate safe methods of loco/train handling in different abnormal conditions.

Note: 10% of total marks on the question paper shall be allotted to official language and policy (Authority: Railway board letter no E(NG/1-94/IMT/16 dt 16.11.1994 SC NO 107/94)

