

East Central Railway

Office of the
General Manager (P)
Hajipur

Dated : 18.06.2021

No. ECR/HRD/210/Elect./ETTC/DDU

Divisional Railway Manager (P)
DHN, DDU, DNR, SPJ & SEE

Chief Workshop Manager
Workshop SPJ, PD/DDU & CRW/HRT

Notification

Sub : Filling up the post of Sr. Instructor (maintenance)/(Level-7 in Electric Traction Training Centre at DDU.

Ref. : 1- PCEE/ECR's Proposal e-office file no.ECR-DDU0TRSP (EOFF)/2/2021
Dated : 30.03.2021 & 15.06.2021.

2- Principal, ETTC/DDU's letter no.TRS/TRG/ETTC/Estb/21 Dated :02.06.21

Application is invited from the SSE(TRS)/Level-7 or JE(TRS)/Level-6 of East Central Railway to fill up the following ex-cadre post of Sr. Instructor (Maintenance) /Leve-7 in Electric Traction Training Centre at DDU on tenure basis :-

Sl. no.	Category	Level	No. of Post	Essential conditions/Eligibility criteria
01	Sr. Instructor (Maintenance)	Level-7	01	SSE/TRS (Level-7) or JE/TRS (Level-6)/ Loco background having profound knowledge in conventional (WAG-5, WAG-7, WAG-4) as well as 3-ph (WAG-9 & WAP-5, WAP-7) types of locomotives.

Educational Qualification :-

- (i) Essential :- Matriculation
- (ii) Preferential :- Degree or Diploma in Electrical, Electronics, Mechanical, Computer Science or similar Engineering. Degree in Science with physics or mathematics as main subject.
- (iii) At least 5 years working in Loco Shed or any maintenance trip shed of Locomotives.
- (iv) Minimum 10 years experience in Railway.

Desirable :-

Good command in reading, writing and speaking in Hindi and English and working knowledge in computer operation (Microsoftword, Excel and Power Point)

Cont. at P/2.....

Other Service Condition :-

- (i) Instructor who have already repatriated may apply again only after a reasonable gap of at least 03 year. (RBE No.10/2010).
- (ii) Willing applicants should be of 52 years of age & below as on date of issue notification. (RBE No.79/2019 dated : 13.05.2019).
- (ii) Tenure :- Maximum tenure for the post will be 08 years and the minimum tenure should be 03 years. (RBE No.79/2019 dated : 13.05.2019). If performance as Instructor is not found satisfactory, they may be reverted back to their parent cadre.
- (iv) Selected candidates will be eligible for training allowance @ 12% of basic pay (As per E(MPP)/2012/3/28 dated : 06.10.2017).

Candidates will be selected on the basis of written test and Classroom lecture trail. Of the total 100 marks in the written test 75 marks and 25 marks on the the basis of Classroom lecture trail, the total passing marks will be 60 marks. Only the candidates who get 60% marks in the written test will be called for Classroom lecture trail. (RBE No. 79/2019 dated : 13.05.2019).

Concerned Personnel officers and Electrical officers are requested to arrange the wide publicity of this notification amongst the staff and application from the willing and eligible staff to be send to this office latest by **25/07/2021**. In bunches and the same is to verified & ensured candidates fulfill the above mentioned criteria & duly forwarded by concerning office/units and it should be ensured that the application once entertained may not be cancelled in future. application received after target date will not be considered.

Remember that the above posts are ex-cadre posts and completely temporary and time period and the lien and seniority of the candidates during the period of ex-cadre will be maintained in their parent cadre.

Enclosure :- Annexure "A" & Syllabus.

Signed by Saurabh Sawarn

Date: 18-06-2021 16:10:45

Reason: **SP/JECM**

for General Manager (P)/HJP

Copy to : for information and necessary action please :-

- PCEE/ECR/HJP
- CELE/ECR/HJP
- Sr.DEE/ECR/DNR, DHN, DDU, SEE & SPJ
- Principal, ETTC/DDU

for General Manager (P)/HJP

ANNEXURE "A"

Sub : Application format for selection as Sr.Instructor/Maintenance (Ex-cadre Post) for ETTC/DDU.

1. Name
(In Capital letter) :
2. Father's Name :
3. Designation/Unit/Division :
4. Pay Scale & Level :
5. Basic Pay :
6. P.F. No. :
7. Working under :
8. Date of Appointment :
9. Date of Birth :
10. Date of entry in present
grade :
11. Date of entry into the present
Grade if working in higher
grade :
12. Educational Qualification :
13. Technical Qualification
(Copies of cert. should be
enclosed) :
14. Knowledge of Computer
(Microsoft, Power Point,
etc) :
15. Details of candidates Loco back-ground
Having Profound knowledge in conventional
(WAG-5, WAG-7, WAG-4) as well as 3ph
(WAG-9 & WAP-5, WAP-7) types of
locomotives. :
16. Whether SC/ST/OBC :
17. DAR/SPE/Vig. Clearance :

Passport size
photograph
attested by
Controlling
Officer

Signature of the Employee

This is to certify that the applicant is fulfill the eligible criteria and the above particulars are true based on the entries of service records and the same is by forwarded for onward action.

Controlling Officer

(Signature, Design. with seal & Date)

Certified by DRM (P)

(Signature, Design. with seal & Date)

Syllabus for Sr Instructor (Maintenance)

- a) General- Working of PPIO, Schedule of inspection and working in unscheduled visit of own and foreign locomotives, periodicity of overhauling and cleaning of items. Distribution and activity of different sections in Locoshed, Pre-testing and Post-testing of loco, Quality control, Inspection of material. RSP, UES, M&P, COFMOW items. Latest SMI, TC and other approved modifications in locomotives. Safety checking of loco. Wheel skidding and slipping.
- b) Electrical Engineering- Resistance, Inductance, Capacitance, Conductor, Insulator and semi-conductors,
Fundamental laws- Ohm's law, Kirchhoff's current and voltage law, Superposition, Thevenin's and Norton's theorem, Guass's Law, Joule's law, Ampere's circuital Law, Star Delta transformation.
R-L-C circuits, Magnetic materials and their properties, B-H curve, Power and Auto Transformer, CT, PT, BDV and DGA test of Transformer. Power factor, Work Power Energy, Electromagnetic Induction, Controlled AC bridges, Polyphase circuit, energy conservation methods in Locomotives. Short circuit and single phasing. Hall effect. Testing procedure of Current, voltage, resistance, Power, Energy using measuring devices. Megger test. Transistor- BJT, FET, MOSFET, IGBT. Thyristor- SCR, GTO, Logic Gates-AND, OR, NAND, NOR, Ex-OR, NOT. Rectifiers and Inverters. Losses, leakages in electrical circuits. Fire prevention methods in locomotives. Use of fasteners and lugs, insulating tapes in electrical joints.
Basic Principle of Electric motors- Shunt, Series DC motors, 3-ph AC Induction motors, Speed Control of DC and AC motors. Calculation of Maximum Torque, slip and efficiency of motors. Maintenance of DC & AC Traction motors.
- c) Stores, Accounts and Establishment- store and scrap handling. Procurement Stock and NS items. Inventory control. ABC and VED analysis of materials. Imprest store. Elementary knowledge of budget control, Audit and account inspection, dead stock register etc. Demand of grants.
Knowledge of D&A rules, Workmen's compensation act, Service conduct rules, HOER, leave rules, Pass/PTO rules, Rajbhasha act.
- d) Electric Locomotives- Features of various types of electric locomotives Conventional (WAG-5, WAG-7, WAP-4) as well as 3-ph (WAG-9, WAG-9H & WAP-5, WAP-7) Bogie, brake rigging, cooling system, lubrication, weight and Power transmission, safety fittings, cab & roof equipments, VCD and Auto Flasher, Aux and Traction motors. Starting torque, adhesion, Traction motor speed Vs actual loco speed calculation with gear and pinion system. Air Brake IRAB, E-70 and CCB-2, Electric (Rheostatic and regenerative) braking, Reciprocating and Screw Compressors used in loco, Pantograph, MU and banking operation, Battery and battery charger. Trouble shooting of Loco. Wheel measurement of Loco.
conventional loco - Power, Aux circuit, DJ closing circuit, feeding Power circuit, GR control circuit, SIV, MPCS, Contactors, Switches and relays, Pilot lamps.

- 3-ph loco- DDS, MCB and switches, SB and HB panel, Panel A, B,C,D of driver desk, Aux Power circuit, load distribution in Aux convertors when any one isolates, Priority 1 & 2 faults, Fault message codes, Sub-systems
- e) Computer- Knowledge in computer operation (Microsoft word, Excel and Power Point), CPU, RAM, ROM, LAN etc. Web searching

PCEE/ECR is requested to approve this syllabus.

