



SOUTH CENTRAL RAILWAY

Office of the DRM/P,
Personnel Branch,
Sanchalan Bhavan,
Secunderabad.

No.SCR/P-SC/210(a)/DLS/KZJ/JE/LDCE

Date: 29.03.2022

JE/DLS/KZJ (LDCE) Notification (Electrical & Mechanical)

Sub: Formation of panel for filling up of the posts of Junior Engineer/DLS/KZJ of **Electrical wing** and **Mechanical wing** in Level-6 of 7th CPC Pay Matrix against 25% LDCE quota in DLS/KZJ, Mechanical Department of Secunderabad Division.

- 1.0 It is proposed to conduct selection for formation of panels for promotion to the posts of JE/DLS/KZJ of **Electrical wing** and **Mechanical wing** in Level-6 of 7th CPC Pay Matrix against 25% Limited Departmental Competitive Examination (LDCE) quota in DLS/KZJ, Mechanical Department of SC Division by calling volunteers from the eligible employees. The details of vacancies are as under:

Category	UR	SC	ST	Total	Employees eligible to apply
JE/DLS/KZJ (Elect.)	1	0	0	1	The Technicians working in the Electrical wing of DLS/KZJ and fulfilling the eligibility conditions as mentioned at para-2 below
JE/DLS/KZJ (Mech.)	1	0	0	1	The Technicians working in the Mechanical and Ancillary wings of DLS/KZJ and fulfilling the eligibility conditions as mentioned at para-2 below

2 Eligibility Conditions:

- 2.1 All the Technicians working with Level-2 and above with minimum Three (3) years of service in skilled grades in DLS/KZJ in the relevant wings as mentioned at Para-1 above and having the following qualification shall apply:
- ITI/Act Apprenticeship pass in the relevant trade (Electrical/Mechanical) to the post of Junior Engineer/Electrical and Junior Engineer/Mechanical (or) 10+2 (MPC) stream in terms of Railway Board's letter No. E(NG)/99/PM7/17, dated 25.08.2003, (PCPO/SC's SCNo.172/2003) (or)
 - Degree or Diploma in the relevant branch of engineering required (Electrical/Mechanical) for the post of Junior Engineer/Electrical and Junior Engineer/Mechanical respectively in terms of Railway Board's letter No. E(NG)/99/PM7/17, dated 28.07.2003, (PCPO/SC's S.No.57/2003) are eligible to submit applications to the post of JE/Electrical wing and JE/Mechanical wing in DLS/KZJ.
- 2.2 The volunteering staff should be below the age of 47 years in the case of General/OBC employees and 52 years in the case of SC/ST employees (PCPO/SC's SCNo.90/2010 & 92/2011)
- 2.3 In terms of Railway Board's letter No. E(NG)/2005/PM1/52, dated 22.08.2006, (PCPO/SC's SCNo.131/2006), the volunteering staff should fulfill the service conditions of age, educational qualifications and their service conditions as on the date of notification, i.e, as on **01.03.2022**.

Note: In respect of employees who have reported/joined on this Division on Inter Railway Request Transfer/Inter Divisional Request Transfer on bottom seniority the service rendered in the relevant Technician category of old unit will also count for the purpose of qualifying service for promotion in the new seniority unit provided that;

- He/she is otherwise eligible to be considered for selection to the post of JE/DLS/KZJ as per extant rules; and
- The category in which he/she was working in the old unit is an eligible category for selection/post in the new unit also. [Authority PCPO/SC's S.C.No.41/2006 & 117/2006].

[Signature]
29/03/22.

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3. **Mode of Selection and qualifying marks**

(Railway Board's letter No.E(NG)/2000/PM1/41, dated 20-08-2003, PCPO/SC's SCNo.144/2003)

- 3.1 Professional Ability: The professional ability of the employees in the field of selection will be adjudged through written test (maximum marks 100). The employees must secure 60% of marks in professional ability.
- 3.2 The post of JE/Electrical and JE/Mechanical being safety posts, there will be no relaxation in qualifying marks for candidates belonging to SC/ST community. They have to obtain minimum of 60% in written test & 60% in aggregate.

Factors / Headings	Max. Marks	Qualifying Marks
Professional ability	50	30
Record of Service	30	-
Total	80	48

- 3.3 Distribution of marks under head of Record of Service:

15 marks	On the basis of grading of APARs/Working report of preceding 3 years
10 marks	For Awards/punishments in the SR
5 marks	On the basis of entries in SR for Academic/Tech. Qualifications

- 3.4 The final panel will be drawn up in the order of merit based on aggregate marks of 'Professional ability' and 'Record of Service'. However, the employees must secure a minimum of 60% marks in 'Professional ability' and 60% marks in aggregate, for being placed on the panel. There will be no classification of candidates as 'Outstanding'. The final panel will also be subject to their being fit in medical classification of B-1 only.

(Railway Board's letter No. E(NG)/2000/PM1/41 dated 20.08.03PCPO/SC's SCNo.144/2003)

4. **Syllabus:**

- 4.1 Syllabus for the written test is enclosed as Annexure 'A' for JE/Electrical wing Annexure 'B' for JE/Mechanical wing.
- 4.2 Sample questions are available on railway website – www.scr.indianrailway.gov.in.
- 4.3 There shall be questions on official language Policy & Rules upto 10% of maximum marks. However, it is not mandatory to attend the same.

5. **Procedure for written examination:**

- 5.1 In terms of Railway Board's letter No.E(NG)/2018/PM1/4,dated 14.12.2018(RBE No.196/2018), PCPO/SC's SCNo.212/2018, the written examination consists of 100% objective and all the questions will be of multiple choice only.
- 5.2 There shall be negative marking for incorrect answers. 1/3rd of marks allotted for each question will be deducted for wrong answers.
- 5.3 **Cutting, over writing, erasing or alteration of any type in the answer will not be accepted. Zero marks will be given for answer having correction or overwriting.**
- 5.4 The written examination will be conducted on OMR sheets.

6. **Sample Questions:**

- 6.1 In terms of Railway Board's letter No.E(NG) I-2006/PM1/34, dated 06.11.2006,(PCPO/SC's SCNo.196/2006) Sample Questions are available to the staff concerned on official website of SC Division (www.scr.inidanrailways.gov.in).
- 6.2 It is further advised that there will not be any mandatory limit of questions from the Sample questions.
- 6.3 Sample Questions are only indicative in nature but not exhaustive. The examinees are advised to update their knowledge with latest Rules/circulars/policies.
- 6.4 The Sample questions so prepared should be updated regularly in accordance with the changing technology and job requirements.

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28/03/22.
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7. **Date and Venue of Examination:**

7.1 **Important dates:**

Last date of submission of applications in Sr.DME/DLS/KZJ office	22.04.2022
Date of publication of eligibility	05.05.2022
Tentative Written Examination date	Will be intimated later
Note: There shall be no Supplementary Exam since the selection will be conducted by calling for applications on voluntary basis.	

7.2 The venue and time of examination will be intimated separately. However, it is to inform the volunteering staff that there will be no supplementary examination to the absentees.

7.3 The instructions for writing the examination enclosed as **Annexure 'D'** may strictly be followed and a copy of sample OMR sheet on which the Exam to be conducted is enclosed for the familiarization of the employees.

8 **Notifying to the staff:**

8.1 The controlling officer/supervisor shall give wide publicity of the notification to all the eligible staff of DLS/KZJ of SC Division and notification should be displayed at conspicuous place. It is the responsibility of controlling officer/supervisor to circulate the notification among the staff concerned.

8.2 In terms of Railway Board's Letter No.E(NG)I-72/PM1/166, dated 26.06.1972, PCPO/SC's SCNo.213/72, the Senior Subordinate/Supervisor concerned has to furnish a certificate that "the eligible candidates were duly notified of the holding of the test and asked to submit their applications duly giving their willingness" and forward the same to Sr.DPO/O/SC. 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 employees. In case of non receipt of any communication the same may be obtained from the Personnel department or from the Controlling Officer. Any laxity in this regard will be viewed seriously.

9 **How to apply:**

9.1 The employees should submit the application in the prescribed format through proper channel enclosed as Annexure 'C'.

9.2 The application should be on good quality of A-4 size using one side only.

9.3 They should fill up the application form in their own handwriting with blue or black ball point pen only.

9.4 All relevant columns in the application should be filled completely & strike out the inapplicable columns and forwarded duly signed by the controlling supervisor/officer wherever required or otherwise same will not be considered.

9.5 Employee should paste the recent Photograph on the application which shall be attested by the concerned supervisor.

9 **Pre-selection Training:**

The vacancies assessed for the above selections are unreserved. Hence no pre-promotional training will be imparted for reserved community employees in terms of Railway Board's letter No.83-E-(SCT)42/1 Dt 14.04.83.

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29/03/22

10 **Last date for submission of Applications :**

The willing and eligible volunteers have to submit their applications in prescribed proforma through their controlling officers along with attested copies of Educational Qualification Certificates on or before **22.04.2022** and in turn who will forward the applications in one bunch to the APO/M&EL on or before **29.04.2022**.

This issues with the approval of the competent authority.

Encl: Syllabus (Annexure- 'A') & (Annexure- 'B'), Application Proforma (Annexure- 'C') and Instructions for writing the examination (Annexure 'D')


(D. Narasimha)
APO/M&EL
for Sr.DPO/SC

C/-Sr.DME/DLS/KZJ→for kind information and necessary actionplease.

C/- OS/Selection Cell

C/- OS/IT Cell→ for uploading on website.

C/- DSs/SCRES/SCRMU/AISCSTREA/SCROBCREA/SC Division.


for Sr.DPO/SC



SOUTH CENTRAL RAILWAY
Office of the Sr.Divl. Mech. Engineer
Diesel Loco shed, Kazipet-506003- Ph&Fax No.08702576154



No. C/M/DSL/KZJ/DTTC/9/2022

Date: 28-03-2022

Sr. DPO/SC

Sub: Syllabus and sample questions for issuing notification for conducting selection to the post of Junior Engineer/Electrical wing and Mechanical wing against 25% LDCE quota at DLS/KZJ
Ref:-Sr.DPO/SC Lr.No.SCR/P-SC/209/DLS/KZJ/LDCE/2022 dated.16.03.22

With reference to the above subject, herewith enclosed sample questions (Mechanical & Electrical) consisting of multiple choice questions with answers and syllabus (Mechanical & Electrical) as in Annexure-I, II, III & IV Respectively.

Encl: Annexure -I : Sample questions –Mechanical
Annexure -II : Sample questions –Electrical
Annexure -III : Syllabus–Mechanical
Annexure -IV : Syllabus –Electrical


Principal/DTTC/KZJ

Syllabus for Selection of Junior Engineer – Electrical- LDCE-25% Quota

1. Knowledge of basic principles of electricity –Ohm's law, Kirchhoff's law, resistance, generators, motors, capacitors, inductors, silicon control rectifiers, inductors, units, terminology and related to electrical equipment of all types of diesel locomotives, DEMUs and diesel units maintained by the shed.
2. Knowledge of switches, breakers, relays, contactors, control panel in Alco & HHP locomotives.
3. Knowledge of various tools and precision instruments required of maintenance of electrical equipment like multi meter, Megger, Clip on meter, Frequency meter, etc..
4. Knowledge of Alco & HHP diesel locomotives, DEMUs and diesel units maintained by the shed Constructional details, functioning, Preventive maintenance schedules, testing and Trouble shooting.
5. Knowledge of functioning, maintenance and testing of the following equipments (applicable only those maintained by shed).
 - a) Actuator
 - b) Fuel shut off solenoid
 - c) Self starter motor
 - d) Fuel pump motor
 - e) Crank case motor
 - f) Auxiliary generator, exciter, battery charging assembly.
 - g) Speedometer
 - h) Tachometer
 - i) Traction alternator /generator of different types
 - j) Traction motor
 - k) Electrical auxiliary machines
 - l) ECC
 - m) Dynamic brake in diesel locos
 - n) Power contactor
 - o) BKTs & Reversers
 - p) TCC , ECC-1, ECC-2, ECC-3, ECC-4
 - q) Traction alternator, Companion alternator & Various electrical rotating machines in HHP locomotives.
6. Working principle of different of different types of excitation system in various types of diesel locomotives, DEMUs and diesel units maintained by the shed.
7. Knowledge of electrical safety devices like LWS, OPS, PCS, EPD, GR, GFOLR, etc (applicable only those maintained by shed)
8. Knowledge of reading various drawing and circuits related to electrical systems.

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9. Knowledge of wiring harness , Physical layout of wire harness , car body cables and terminal boards.
10. Knowledge of conducting load box test and adjustment required to be made for all types of locomotives and diesel units maintained by shed.
11. Knowledge of locomotives working in multiple units.
12. Safety precautions to be taken at the work place.
13. Fire prevention measures and fire fighting to followed in the locomotive as well as in the shed
14. Knowledge of Indian electricity Rules & Acts.
15. General store procedure indenting of stoke and non-stoke item and stocking procedure.
16. Knowledge of Establishment rules like HOER, WCA, Leave rules, Pass rules, D&A rules, conduct rules and Office language policy.
17. Knowledge on RSP, M&P Programme , PWP,LSWP, etc....
18. General knowledge of Railway Establishment and their functions.
19. Knowledge of computer.
20. Various control system in HHP locomotives- MEDHA, SIEMENS,EMD.
21. Knowledge on various developments such as TCAS, REMMLOT, DPCS, APU,VCD.

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Syllabus for Selection of Junior Engineer –Mechanical LDCE-25% Quota

1. Knowledge of basic principles and terminology of Mechanical equipment of all types of Diesel locomotives, DEMUs and Diesel units maintained by Shed.
2. Knowledge of Alco and HHP locomotives, DEMUs and Diesel Units maintained by shed - Constructional details, working and functioning. Preventive maintenance schedules, Testing & troubleshooting.
3. Functioning, maintenance & testing of following equipments- Alco & HHP locomotives.
 - (i) Power Pack
 - (ii) Under Truck
 - (iii) Compressor
 - (iv) Brake systems
 - (v) Hydraulic system
 - (vi) Turbo Super Charger of various types
 - (vii) Turbo Clutch assembly
 - (viii) Heat Exchangers
 - (ix) Cylinder Heads
 - (x) FIP
 - (xi) Water Pump
 - (xii) Lube Oil Pump
 - (xiii) After Cooler
 - (xiv) RTTM/FTTM Blower
 - (xv) EPD
 - (xvi) Hot Oil Detector
 - (xvii) MUI
 - (xviii) Radiators
 - (xix) Governors
4. Knowledge of reading various drawings related to mechanical systems.
5. Knowledge of Fuel Oil system, Lube oil system, Cooling water system, Air Intake system, compressor- Maintenance, troubleshooting, rectification in Alco & HHP locomotives.
6. Knowledge of Latest developments like long life lube oil filters, Plate Type Lube Oil Coolers, Lube Oil Centrifuge, Air dryers, high horse power turbo super chargers, VCD, APU, DPCS etc. (applicable only those maintained by shed).
7. Under Truck – Alco & HHP locomotives-Over hauling of bogies, Roller Bearings, checking of Axle box bearings and clearances. Checks conducted on important clearances, testing of springs, dampers, equalizing beams, compensating beams, knowledge of 'wheel gauge widening' and measurement of wheel profile. Knowledge of design features of high adhesion bogies, Tri mount cast bogies, equalizer less bogies. Knowledge of Radial bogies used in HHP

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locomotives (applicable only those maintained by shed) & HTSC bogies.

8. Safety – Knowledge of various safety items fitted in the engine & locomotive.
9. Safety checks to be conducted on locomotive (including fire safety), before despatch.
10. Knowledge of Air brake system – Alco & HHP locomotives- IRAB, CCB brake system (CCB 1.5 & CCB 2.0). Overhauling procedure of all air brake valves, operational procedure of multiple unit operation. Knowledge of troubleshooting in air brake system. Conducting Air brake self test & MU setup for HHP locos.
11. Knowledge of various tools and precision instruments required for maintenance of mechanical equipment.
 - (i) Power wrenches
 - (ii) Torque multipliers
 - (iii) Vernier calliper
 - (iv) Wheel profile gauges
 - (v) Temperature measurement gauges etc.
12. Knowledge of locomotive working in multiple units.
13. Safety precautions to be taken at work place & OHE safety precautions.
14. Fire prevention measures and fire fighting to be followed in the locomotive as well as in the shed.
15. General stores procedures – Indenting Stock & Non- Stock items and stocking procedure.
16. Knowledge of Establishment rules like HOER, WCA, Leave rules, Pass rules, D&A rules, Conduct rules and Official Language policy.
17. Knowledge of various Preventive maintenance schedules (Trip, Monthly, M-4/M-12/M-24 for Alco, 30D, 90D, 180D, Y1, Y2, Y3, Y4, Y5, Y6 schedules for HHP locomotives) and important jobs done in each schedule.
18. Knowledge of Quality Standards (i) ISO 9001:2015, (ii) ISO 14001:2015, (iii) OHSAS 18001:2007.
19. Knowledge of Computer.

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Application for selection to the post of Junior Engineer in Level-06 against 25% LDCE quota in Mechanical Department in DLS/ KZJ of Secunderabad Division.

Applied for the post of: _____ (JE/Elect. (or) JE/Mech.)

Affix recent photograph attested by controlling/officer supervisor

1. Name of the Employee :
2. PF No. :
3. Designation / Station :
4. Date of Birth (DD/MM/YYYY) :

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5. Age as on (.03.2022) : _____ Years _____ Months _____ Days
6. Community [UR/OBC/SC/ST] :

7. Date of Initial Appointment/Station/Dept./Divn./Rly:

Designation	Date of Appt	Station	Dept.	Division	Railway
Technician Gr.III (L-2)					
Technician Gr.II (L-4)					
Technician Gr.I (L-5)					
Sr. Technician (L-6)					

8. Total Length of service in Technician Gr.III and above: _____ Years _____ Months _____ Days.
9. Educational Qualifications :
(Attested copies of certificates are to be enclosed)
10. Awards conferred during the last three years if, any:
11. Penalties imposed during last three years if, any:
12. Any other relevant information :
13. Contact Number : _____ (Mobile) _____ (Office)

Declaration: I hereby declare that the particulars furnished above are true, complete and correct to the best of my knowledge and belief. I understand that, if at any stage it is found that the information furnished is false, incorrect or I do not satisfy/fulfilling the eligibility criteria, my candidature/ appointment on promotion is liable to be cancelled besides liable for disciplinary action as per rules. I have read contents of the notification and agree to abide by the rules, regulations and procedure prescribed for promotion to the post of Junior Engineer.

Date: _____ Signature of the Employee
Station: _____ Name :
Designation :

(For the use of Supervisor of the employees)

Letter No.

Date:

It is certified that the particulars furnished by the employee are verified with the records available in this office and found to be correct and forwarded for further course of action.

Signature of the Supervisor with date & stamp

(For the use of Controlling Officer of the employees)

Letter No.

Date:

Verified and counter Signed and forwarded to Sr.DPO/SC for further necessary action.

Signature of the controlling officer with date & stamp

उम्मीदवारों के लिए निर्देश

1. उम्मीदवारों को, दिए गए बॉक्स को छोड़कर कहीं भी अपना नाम / रोल नं. लिखना / हस्ताक्षर नहीं करना चाहिए.
2. उम्मीदवार को नीली या काली स्थायी वाली कलम / बॉल पेन का उपयोग करना चाहिए.
3. यदि यह पाया जाना है कि उम्मीदवारों ने अपनी पहचान प्रकट करने के लिए कुछ अन्य माध्यमों का उपयोग किया है तो ओएमआर शीट का मूल्यांकन बिल्कुल नहीं किया जाएगा;
4. केवल एक ही उत्तर को चुना एवं अंकित किया जाए. यदि किसी एक प्रश्न के लिए एक से अधिक उत्तर अंकित किए गए हों या किसी प्रश्न के लिए कोई उत्तर न हो, तो उस प्रश्न के लिए कोई अंक नहीं दिया जाएगा.
5. उत्तर को मिटाने / काटने / परिवर्तन / या उत्तर को बदलने की अनुमति नहीं है.
6. उत्तर / ओएमआर शीट को न तो मोड़ें और न ही उन्हें फाड़ लें या टैग करें या पिन-अप करें या स्टेपल करें.
7. उत्तर / ओएमआर शीट पर रफ़ कार्य न करें.
8. गलत उत्तरों के लिए अंक काट लिए जाएंगे. गलत उत्तरों के लिए, प्रत्येक प्रश्न के लिए आबंटित अंकों का एक तिहाई अंक काट लिया जाएगा.
9. प्रत्येक प्रश्न के लिए केवल एक ही सही / सबसे उपयुक्त उत्तर है.
10. पहले से की गई छायांकन को छिपाने के लिए मार्कर, सफेद तरल पदार्थ या किसी अन्य उपकरण का उपयोग न करें
10. ओएमआर शीट दो प्रतियों में होगी. उम्मीदवारों को किसी भी विसंगति के मामले में और परीक्षा शुरू करने से पहले ओएमआर शीट की जांच कर लेनी चाहिए.

उत्तर देने की सही विधि

(पूरी तरह से उपयुक्त सर्कल छायांकन)

अगर आपका जवाब 2 है

यदि आपका उत्तर 3 है

अगर आपका जवाब 1 है

अगर आपका जवाब 4 है

जवाब देने का गलत तरीका

बजाते

चौराहा

आंशिक रूप से छायांकन

एक से अधिक मंडलों में छायांकन करना

किसी भी घेरे में छायांकन नहीं

छायांकन के गलत तरीके के लिए कोई अंक नहीं दिया जाएगा

Instructions for the candidates

1. Candidate should not write his/her Name/Roll. No./signature except in the box provided.
2. The candidate should use either **blue or black ink pen/ball pen**.
3. If it is found that the candidates has used some other means to distinctly reveal his identity then **the OMR sheet shall not be evaluated at all**;
4. **Only one response to be selected & marked**. In case more than one response is marked for a single question or no response is marked for a question, no marks will be given for that question
5. Erasing/cutting/alteration of answer or changing of answer is not allowed.
6. **DO NOT** fold answer/OMR sheets or file them or tag them or pin-up them or staple them.
7. Rough work is **NOT** to be done on the answer/OMR sheet.
8. There shall be **negative marking** for incorrect Answers. **One third** of the marks allotted for each question will be deducted for wrong Answers.
9. There is **only one correct/most appropriate** answer for each question.
10. Do not use marker, white fluid or any other device to hide the shading already done
11. OMR sheet will be in two copies. Candidates must check before starting examination and in case of any discrepancy.

CORRECT METHOD OF ANSWERING (Shading fully the appropriate circle)

If your answer is 2	1. ☐ ① ☒ ② ☐ ③ ☐ ④
If your answer is 3	2. ☐ ① ☐ ② ☒ ③ ☐ ④
If your answer is 1	3. ☒ ① ☐ ② ☐ ③ ☐ ④
If your answer is 4	4. ☐ ① ☐ ② ☐ ③ ☒ ④

INCORRECT METHOD OF ANSWERING

1. ☐ ① ☒ ② ☐ ③ ☐ ④	Ticking
2. ☐ ① ☒ ② ☐ ③ ☐ ④	Crossing
3. ☐ ① ☐ ② ☐ ③ ☐ ④	Partly shading
4. ☒ ① ☐ ② ☐ ③ ☒ ④	Shading more than one circle
5. ☐ ① ☐ ② ☐ ③ ☐ ④	Not shading any circle

No marks will be awarded for incorrect way of shading.

तारीख सहित उम्मीदवार के हस्ताक्षर

Signature of the candidate with date