

EAST COAST RAILWAY

Office of the
Principal Chief Personnel Officer
Bhubaneswar.
Date: 18.03.2021

No.ECoR/Pers/Gaz/S&T/ASTE-30%/LDCE/21-22

All PHODs/CHODs-ECoR/BBS.

The CAO(Con)/BBS, CPD/RE/BBS.

The Dy. CVO/BBS, SPO (Con)/BBS & VSKP.

The Sr. DPO/Sr. DSTE- ECoR/KUR, WAT & SBP.

The CWM/CRW/MCS, WPO-CRW/MCS.

All Concerned.

Sub: Formation of Group-B/S&T Panel of ASTE against 30% LDCE quota vacancies for the assessment period from 01.01.2021 to 31.12.2022 (2021-22) in Signal & Telecommunication Engineering Department of East Coast Railway.

It has been decided by the competent authority to hold written test for formation of Group-B S&T Panel of 01(UR) post of ASTE against 30% LDCE quota vacancy in Signal & Telecommunication Engineering Department of East Coast Railway for the assessment period 2021-22. The exact date, time and venue of the written test will be intimated in due course.

Eligibility Conditions:

In terms of Para (ii) of Railway Board's letter No. E(GP)99/2/22 dated 29.03.2010 (RBE No. 46/2010)- Group-C technical employees of S&T Department of ECoR working in Level-6 and above with 5 years of non-fortuitous service in the grade (including non-fortuitous service rendered in the corresponding pre-revised grade pay) as on 01.01.2021 (cut-off date) are eligible for the post of ASTE/Gr-B against 30% LDCE quota vacancy for the assessment period of 2021-22.

NOTE

- (i) In terms of Rly. Board letter No. E(NG)1-93/PMI/4 dtd. 18.01.93, time spent by the Rly. Servant under training immediately before appointment to regular service will be counted as service for the purpose of LDCE.
- (ii) Staff whose lien is maintained in the revised jurisdiction of ECoR are only eligible. Besides, the Staff whose lien is maintained in ECoR but working outside the jurisdiction of ECoR will also be eligible. In such case they have to submit their applications duly certified by the Personnel Officers of the Divisions/Units where their lien is maintained.

Employees eligible as per the above eligibility conditions should only exercise their willingness/option to appear the above LDCE **on or before 19.04.2021** in the attached format (Annexure-A) to the concerned Controlling Officers/Personnel Officers. The concerned controlling Officers should send such options received immediately to the respective Personnel officers who should scrutinize the candidature of the employees as per the above eligibility conditions/verifying the respective Service Sheets and send the names of the eligible staff only in consolidated statements as per proforma attached so as to reach this office **on or before 30.04.2021** positively. The concerned Personnel Officers should ensure that all the columns of the enclosed proforma are properly filled-in before sending the statements to this office. A soft copy of the said statement must be sent invariably to this office along with the hard copy for scrutiny.

In case, any candidate is on leave or on deputation to other Railways/Units/office or on sick list, the Controlling officer concerned and the offices where he/she last worked should send necessary advice to the authority under whom he/she is working or the Medical Authority as the case may be without fail and acknowledgements obtained.

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The concerned Personnel Officers & the Sr. DSTEs are advised to give wide publicity to this Notification at all major Units under their jurisdiction. The Divisions are advised to submit an undertaking that the Notification has been served at all major Units where eligible staff are available and their acknowledgement should be obtained. This should be jointly certified by Sr. DPOs & Sr. DSTEs. It should be noted that on obtaining such certificates from the Divisions, list of eligible candidates and date of examination shall be published.

Options of the staff concerned need not be sent to this office directly. Controlling officers/Personnel officers should ensure that options received by their offices after 19.04.2021 are not considered under any circumstances. Names of those staff who have not fulfilled the eligibility criteria as mentioned above need not be forwarded. It may also be noted that incomplete statements furnished by the divisions/units will not be entertained.

As there is no reserved vacancy in this notification, Pre-Selection training is not mandatory as per RBE No. 142/2019.

Objective and Scheme of Examination: The examination aims at a comprehensive assessment of knowledge of the candidates related to their Technical subject, Official language policy, Establishment and Financial Rules. *The formation of the panel will be on the basis of 'Merit'.* Selection of candidates for empanelment is based on (i) Written Examination, (ii) viva-voce (with prior Medical Fitness test) and assessment of records by the Selection Committee vide Para-204.1 of IREM Vol.1. The following procedure as outlined in RBE No. 53/2019 and in para- 10 & 11 of Master Circular No.68 will be followed in the written test, viva-voce and evaluation of record of service.

(i) Written Examination: In order to bring objectivity to the selection process, it has been decided by Railway Board vide RBE No. 53/2019 that there shall be a Pre-qualifying single paper examination of 100 marks which shall have 100% Objective type Multiple Choice Questions only. The distribution of marks will be as under:-

- | | | |
|----|--|------------|
| a) | Technical Subject | : 40 marks |
| b) | General Knowledge including optional Questions on Official language Policy | : 30 marks |
| c) | Establishment and Financial Rules | : 30 marks |
- d) **Qualifying Marks:** The candidates scoring 75% and above in the Pre- qualifying examination shall be eligible for appearing in the main examination and for this, number of candidates should be restricted to 5 times the number of respective vacancies in order of merit.
- e) **Main examination:** The Pre-qualifying examination will be followed by one descriptive type paper on professional subject comprising of 100 marks and the qualifying marks in the written examination will be 60% and above.
- f) **Syllabus for 30% LDCE:** The syllabus prescribed by the Railway Board for written examination for promotion from Group-'C' to Group-'B' post in Signal & Telecommunication Department which was published by Railway Board vide their letter No. E(GP)2006/2/34 dated 09.08.2010 (RBE No.113/2010) constitute topics on Paper-I & Paper-II. In terms of RBE No. 53/2019, the topics on professional subjects of Paper-I and Paper-II have been amalgamated and the topics picked up by the Competent Authority for the Pre-qualifying and main examination are enclosed.
- g) All objective type questions will carry equal marks. Every question should have four options numbered as A,B,C,D (only Capital letters) and answers to such questions by the candidates are to be marked on OMR answer sheets and the OMR answer sheets will be evaluated manually.
- h) There will be 110 questions of objective multiple choice type with four answer options and the candidate has to answer a maximum of 100 questions. In case, any candidate answers more than 100 questions, first 100 attempted questions only are to be taken for evaluation.

- i) The questions on official language policy will be of 10 marks i.e, 10% of maximum 100 marks, but these questions will not be compulsory.
- j) There shall be negative marking for incorrect answers. One-third of the marks allotted for each question will be deducted for every wrong answer as per RBE No.53/2019.
- k) Candidates should get it noted that to ensure the authenticity of the answers to Multiple Choice Questions, no corrections of any type (viz. cutting, overwriting, scoring off a ticked answer & ticking another answer, erasing, modifying the answer in any way) will be permitted. Zero marks will be awarded in such cases of corrections in terms of RBE No. 53/2019.
- l) The duration of the written examination will be of **02 hrs (120 Minutes) for the Pre-qualifying and Main Examination.**
- (ii) **Viva-voce** (Only medically fit candidates will be allowed to appear the Viva-voce test):

	Maximum marks	Qualifying marks
1. Viva-voce	25	30 (Including at least 15 marks in record of
2. Record of service	25	Service)

As per rule, no supplementary examination is permissible in LDCE for the absentees under any circumstances. The Controlling Officers/Sr.DPO/WPO/SPO of concerned Unit/Division should ensure that the ACRs/APARs of the candidates for the last five years, completed in all respects, SRs & Personal files are kept ready with them and they should send the same to Dy. CPO(Gaz)/SPO(Gaz)/BBS, when called for.

In terms of Railway Board's letter No. E(GP)80/2/8 dtd. 31.10.91 only those candidates who qualify in the medical examination of prescribed standard are eligible to appear in the viva-voce test.

NB: In connection to above, complaints/suggestions if any should be submitted to the undersigned on or before 01.04.2021, so that the same can be put up to the Competent Authority for consideration, otherwise complaints/ suggestions received beyond it, will not be entertained.

Encl: (1) Syllabus. (2) Annexure-A

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Senior Personnel Officer (Gaz)
For Principal Chief Personnel Officer

Copy to: (1) Sr. System Manager (IT)/BBS for uploading in ECoR's website.
(2) The General Secretary-ECORSC/BBS, ECoRSU/BBS.
(3) Notice Board.

18.3.21
For Principal Chief Personnel Officer

East Coast Railway

Proforma of Application for ASTE-30% LDCE for 2021-22**OPTION:** Whether Willing/Unwilling

1. Name & Community of the candidate:
2. Father's Name :
3. Designation :
4. Station/Division/Unit
5. Date of Birth :
6. P.F. No :
7. Present Grade :
8. Date of initial Appointment & Grade :
9. Date of Apptt./Promotion to Level-6:
10. Date of Apptt./Promotion to Level-7:
11. Mobile No. :
12. Email ID :
13. Signature of the candidate :
14. Date :
15. Countersignature of the controlling officer:

(With Designation and seal)

(Note: Willingness/Unwillingness to be submitted on or before)

Proforma of statement for submission of options by Divisions to HQs.

Sl. No	Name, Design/station & PF No.	Father's Name	Comm. (UR/SC/ST)	Present Grade	Date of Birth	Date of initial Apptt. & Grade	Date of Apptt./ promotion in Level-6	Date of Apptt./ promotion in Level-7	Date of receipt of application	Remarks (Eligible/ In eligible)



B. Main Exam

Professional subject
PAPER-I, PART-II, PART-A: Rules and Mannuals
Rules for opening of a Railways
Signal Engineering Mannual
Telecommunication Engineering Mannual
Accident mannual- Accident classification
Causes of accidents and their prevention
Duties of first official reaching accident site
PAPER-I, PART-II, PART-B: FUNDAMENTAL ENGINEERING
Electrical Machinery and circuits
Protection systems against lightening and surges
Principles of optics and optic fibre cables
Data communication principles & Information technology
Basic LAN/WAN& networking
PAPER-II, PART-II, PART-A: Signalling
Interlocking plans and locking tables
Block signalling
Automatic signalling
Panel interlocking
Route relay interlocking
Centralised Traffic control (CTC)
Electronic Interlocking (EI)
Block Proving by Axle counters (BPAC)
PAPER-II, PART-II, PART-B: Telecommunication
Control office and way station and emergency control communication equipment
specialised communication and allied equipment like STM, DWDM etc. in Railways comprising HF, VHF, and Microwave
OFC and Quad cable
Communication in RE area
networks for PRS, FOIS, TMS, UTS, etc
PAPER-II, PART-II, PART-C: Workshop practice
Workshop machines and their utilisation
Overhauling procedure and practices
Testing procedure
Invertors & battery chargers/ Float rectifiers
Relay Technology-Different types of relays & their working,
Block instruments and point machines

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A. Pre Qualifying Exam

Professional subject
<u>PAPER-I, PART-II, PART-A: Rules and Mannuals</u>
Store Procedure and Practices
AC traction Mannual
Block working Mannual
Schedule of dimensions
Operation mannuals
Disaster Management
Enquiries
Failure analysis and investigations
<u>PAPER-I, PART-II, PART-B: FUNDAMENTAL ENGINEERING</u>
Fundamental engineering & applied technology
Simple structures
Dynamics
Simple machinery
Magnetism
Electricity
Sound
Fundamental Electronics and Electronic circuits
Power supply equipment and Systems
Principles of digital electronics- boolean algebra
Digital devices and their applications
Familiarity with PC specifications
Operating systems- Windows
Operating and application software
Intranet/ Internet
<u>PAPER-II, PART-II, PART-A: Signalling</u>
Mechanical & Electrical interlocking
Electro-mechanical and Electrical signalling
Axle counters
Track circuits
Automatic warning systems
Train protection and warning systems (TPWS) and/or Anti collision Device (ACD)
Data loggers & Networking
LED signals
Audio Frequency Track circuits (AFTC)
Integrated Power Supply (IPS) etc
<u>PAPER-II, PART-II, PART-B: Telecommunication</u>
Overhead and underground cable system
Telephone exchange-automatic
GSM-R and/or Tetra for Mobile Train Radio
Data communication & IP networks
Digital Electronic exchanges
ISDN
Network Management Systems
Concept of GPS
<u>PAPER-II, PART-II, PART-C: Workshop practice</u>
Raw material, processing
Inspection and testing of components
Commissioning and measurement
Integration
Testing and Certification of IPS/SMPS
DC-DC convertors
Block instruments & Relays
Quality Control and safety practices

A. Pre Qualifying Exam

PAPER-I, PART-I, GENERAL
General Knowledge: (1) Questions of general interest and national importance, achievements of railways etc (2) official language
General mathematics: (1) Arithmetical and statistical operations, graphs, fractions, percentage, sampling and averages (2) Geometry- area & volume up to higher secondary/12th standard level; (3) Algebra- simultaneous equations up to higher secondary/12th standard level, (4) Mechanics- Velocity and acceleration, work done, horse power etc up to higher secondary/12th standard level
Strength of material: Various engineering materials and their properties, bearings, stress and strain, fatigue, hardness, corrosion and surface finish
Physics and basic electricity: (1) Temperature and measurement, (2) Mechanics - Newton's law of motion, velocity and acceleration, Work, energy, Power, Archimedes principle etc., (3) Heat and work, expansion of solids, liquids and gases, (4) IC engines, gas turbines, heat recovery, & thermal efficiency, Super charging & inter cooling, (5) Ohm's law, Coulomb's law, Faraday law, Voltage, Current and resistance, Wet and dry batteries, Power factor, (6) Simple motors, & dynamos, - Principle of working of transformer, relay, fuse, circuit breaker, (7) Power supply, AC & DC rectifiers
PAPER-II, PART-I, Establishment and Financial rules
Establishment rules:
(1) General conditions of services of Railway servants including rules regarding leave joining time, passes etc (2) Railway service D&A rules-1968 & amendments (3) Railway service conduct rules -1966 & amendment (4) Retirement benefits (5) Payment of wages, allowance & overtime (6) Labor laws including payment of wages act, Workmen compensation act, Hours of employment regulations, Factory act, Contract labour act, (7) Manpower planning and training, (8) Welfare measures in Railways, (9) PNM, JCM, PREM
Financial Rules:
(1) Parliamentary control over Railway finance- public accountability, canons of financial propriety, (2) Railway Budget- Budgetary terms, Types of Budget, Budget cycle, Demand of grants, Expenditure classification (3) Rule for allocation- classification of expenditure, Control over expenditure- Responsibility of accounting performance budgeting, Exchequer, General financial results of working (4) Work programme- Financial justification of works, survey, Preparation of estimates, Capital budget- control over expenditure, capital expenditure, re-appropriation (5) Financial Control over expenditure- Purchase and stores keeping procedure- inventory control, (6) Financial and cost control in Railway workshop (7) Rules and Procedure relating to tenders and contracts for execution of works and procurement of stores, M&P Programme (8) Procedure for processing and finalising the audit objections and draft paras (9) Delegation of powers

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