

Examination Notice

BHARAT SANCHAR NIGAM LIMITED

(A Govt. of India Enterprise)
Corporate Office
Recruitment Branch
Room No. 223, 2nd floor, Eastern Court Building,
Jan path, New Delhi - 110001.

No. 35-1/2014-Rectt.

Dated: 11 /01/2016

To

All Chief General Managers, Telecom Circles, BSNL,
Chief General Managers, Kolkata Telephones/Chennai Telephones, BSNL
Chief General Managers, Mtce, NTR, BSNL, New Delhi.

Subject:-Limited Departmental Competitive Examination (LDCE) for promotion to the grade of Junior Telecom Officer (Electrical) under 20% Quota to be held on 27/03/2016 – Notification of Exam reg.

Starting date of Online Registration : 25/01/2016
Closing date of Online Registration : 19/02/2016
Date of LDCE for promotion to JTO (E) : 27/03/2016

Sir,

I am directed to state that it has been decided to hold the Limited Departmental Competitive Examination (LDCE) for promotion to the grade of Junior Telecom Officer (Electrical) under 20% quota as per the provision in the Recruitment Rule of Junior Telecom Officer (Electrical) circulated vide BSNL Corporate Office Letter No. 5-7/2001-Pers.IV dated 10/08/2001 and amendment thereto issued from time to time in order to fill up the vacancies for the vacancy year 2013-2014 as well as backlog/unfilled vacancies for SC/ST for the year 2010.

2. The current vacancy position as conveyed by the Cadre controlling authority vide their U.O. Note 2-79/2010-Elect. dated 17/06/2015 is as follows:

Year	Current Vacancies				Backlog Vacancies		
	Total	UR	SC	ST	Total	SC	ST
2013-14	84	77	6	1	27	15	12

* Vacancies are subject to change.

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3. The Circle-wise vacancy position intimated by Electrical Wing is as under :-

S. No.	Circle	Total Vacancies LDCE				Backlog Vacancies - 2010			Current Vacancies LDCE (2013-14)			
		UR	SC	ST	Total	SC	ST	Total	UR	SC	ST	Total
1	A&N	0	0	0	0	0	0	0	0	0	0	0
2	AP	0	1	0	1	1	0	1	0	0	0	0
3	Assam	3	1	0	4	1	0	1	3	0	0	3
4	Bihar	4	1	0	5	1	0	1	4	0	0	4
5	CG	2	1	0	3	0	0	0	2	1	0	3
6	Gujrat	8	2	1	11	2	1	3	8	0	0	8
7	Haryana	3	1	1	5	1	1	2	3	0	0	3
8	HP	0	0	0	0	0	0	0	0	0	0	0
9	J&K	1	0	0	1	0	0	0	1	0	0	1
10	JKD	1	0	0	1	0	0	0	1	0	0	1
11	Kerala	1	2	1	4	1	1	2	1	1	0	2
12	KTK	0	0	1	1	0	1	1	0	0	0	0
13	MH	22	4	2	28	3	2	5	22	1	0	23
14	MP	5	1	1	7	0	1	1	5	1	0	6
15	NE-I	1	0	0	1	0	0	0	1	0	0	1
16	NE-II	0	0	0	0	0	0	0	0	0	0	0
17	Odisha	2	1	0	3	1	0	1	2	0	0	2
18	Punjab	4	1	1	6	1	1	2	4	0	0	4
19	Raj	7	1	1	9	1	1	2	7	0	0	7
20	TN	0	1	1	2	0	1	1	0	1	0	1
21	UP (E)	5	1	1	7	1	0	1	5	0	1	6
22	UP (W)	2	0	0	2	0	0	0	2	0	0	2
23	UKD	1	0	0	1	0	0	0	1	0	0	1
24	WB	5	2	1	8	1	1	2	5	1	0	6
25	NTR	0	0	1	1	0	1	1	0	0	0	0
	Total	77	21	13	111	15	12	27	77	6	1	84

4. The unfilled/back log vacancies up to 2010 (SC-15, ST-12) shall be filled up against the vacancy years 2010-11 onwards subject to the eligibility of candidates.

5. The examination will be conducted through Online mode and as per revised Scheme and syllabus of examination circulated by Electrical Wing, BSNL CO. vide letter No. 2-37/2010-Electrical dated 19/01/2015. The details of Papers and Time Table of the examination will be as under:

Paper No.	Subject	Maximum Marks/No. of Questions	Day & Date	Time(IST)
I (Part-A)	General English & General Studies	50 Marks / 50 Questions	27/03/2016 (Sunday)	10:00 hrs to 01:00 hrs
I (Part-B)	Electrical Engineering	100 Marks / 100 Questions		

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Syllabus for each Part has been detailed in **Annexure-A**.

6. As already informed vide BSNL CO letter No. 2-37/2010-Electrical dated 19/01/2015, the examination will be of multiple choice objective type and as such each question will have 4 multiple choices for answer. Only **one** answer which is the most appropriate has to be selected by the candidate and click the relevant option accordingly. In case of wrong answer, 25% marks of that question will be deducted and as such the candidates are advised not to resort to arbitrary selection of answer. Minimum qualifying marks prescribed is 30% in each part and 37% in aggregate in respect of 'OC' candidates and 23% in each part and 30% in aggregate in respect of 'SC/ST' candidates.

7. The eligibility for appearing in the above mentioned Limited Departmental Competitive Examination shall be as per existing Recruitment Rules of JTO (E) issued by Pers. IV section of BSNL CO vide their letter No. 5-7/2001-Pers.-IV dated 10/08/2001. However, in case of any doubt with regard to eligibility, Syllabus and the Scheme of the examination, the Circles may take up the matter suitably with the Electrical Wing of the BSNL CO. for necessary clarification.

8. The LDCE will be held in 25 BSNL Territorial Circles at their respective headquarters. The details of the Territorial Circles where the LDCE will be conducted are given at **Annexure-B**.

9. The examination will be conducted strictly in accordance with provisions of Standard Operating Procedure (SOP) for conducting Computer based Online examination in BSNL.

10. Group 'C' officials of Engineering Wing who are eligible in accordance with the eligible conditions as referred in the Recruitment Rules and who desire to appear in the examination should submit application on-line. Candidates applying for LDCE for promotion to the post of Junior Telecom Officer (Electrical) {JTO (E)} are required to apply online for which link shall be provided through BSNL web site www.internalexam.bsnl.co.in. Applications will be considered only through the online registration process which is to start from 25-01-2016 and will be closed on 19-02-2016. Therefore, candidates are advised to visit BSNL Intranet site (www.intranet.bsnl.co.in) for any updates regarding the LDCE. All candidates applying for LDCE for JTO (E) are required to read all the instructions provided on website www.internalexam.bsnl.co.in before filling the online application form. Candidates will have to provide valid Email ID and Mobile Number at the time of online Registration. After submitting the application on-line, the applicant may take a print out of application form and keep it with him/her for record.

11. The prescribed examination fee Rs.500/- (Rupees Five Hundred only) for the OC/OBC candidates and Rs. 250/- (Rupees Two Hundred Fifty only) for the SC/ST candidates shall be paid through online mode i.e. Internet Banking, Credit Card, Debit Card only.

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The amount of the fee shall not be accepted in any other form. Fee once paid shall NOT be refunded under any circumstances nor can be held in reserve for any other examination or selection.

12. Registration forms complete in every respect must be submitted Online on or before 19-02-2016. Candidates are advised to complete their registration process well before last date to avoid last day. Registration process will not be allowed after last date and all incomplete registrations will be treated as rejected. Candidates will have to download their Admit Card from the BSNL website **www.internalexam.bsnl.co.in** at least before 7 days from the date of the Written Test by using their user name & password. **It will not be sent either by post or by e-mail.** BSNL shall not be responsible for server crash problems or delays occurring on last day of registration.

13. The applicants would be admitted to the examination on the basis of the information furnished by them in their registration form. They are, therefore, advised to ensure that they fulfill all eligibility conditions before applying. In case it is found at a later stage that the information furnished by an applicant is false or an applicant does not fulfill any of the eligibility conditions, the candidature of such applicants would be cancelled and no correspondence in this regard would be entertained. Issuance of an admit card for the examination will NOT confer any right for promotion/appointment. Promotion/appointment will be solely subject to fulfillment of all eligibility conditions.

14. No electronic gadget or mobile phone will be permitted to be taken inside the examination premises by the candidates.

15. THIS LETTER MAY PLEASE BE GIVEN WIDE PUBLICITY.

16. The receipt of this letter may please be acknowledged.



(K.D. Das)

Asstt. General Manager (Rectt.-I)

Tel. No. 011-23352491 (O)

Copy to:

1. PGM (Electrical), BSNL CO.
2. AGM (A&E) BSNL CO.
3. All recognized Associations.
4. Notice Board.
5. Guard file.
6. BSNL Intranet Portal



(Sudhanshu Shekhar Ray)
Deputy Manager-III (Rectt.)

Syllabus for Limited Internal Competitive Examination for Promotion from Group 'C' to JTO(E).

Part A –General English & General Studies
(Objective Multiple Choice Questions)
(50 Questions of one mark each)

Standard of Paper : Standard of the paper will be such that of CBSE Xth Standard.

1. General English (25 Marks)
The question paper in General English shall be designed to test the candidate's understanding of English.
The pattern of questions shall be broadly as follows:-
 - (i) Comprehension of given passages.
 - (ii) Usages and vocabulary.
 - (iii) Grammar.

2. General Studies (25 Marks)
The paper on General Studies shall include questions on the following topics:-
 - (i) General Science.
 - (ii) Geography of India and its natural resources.
 - (iii) Current Events of National & Internal Importance.
 - (iv) General Mental Ability Test.

Questions of General Science will cover General Appreciation and understanding of Science including matters of everyday observations and experience, as may be expected of an educated person, who has not made a special study of any scientific discipline.

Questions in the Geography of India and its natural resources will relate to Physical social & Economic Geography of India.

Questions on the General Mental Ability Test will include questions on Analogies similarities, differences, space visualization, problem solving, analysis, Judgment, decision making, visual memory, discrimination, observation, relationship, concepts, arithmetical reasoning, verbal & figure classification, arithmetical number series etc.

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Syllabus for Limited Internal Competitive Examination for Promotion from Group 'C' to JTO(E).

Part B -ELECTRICAL ENGINEERING
(Objective Multiple Choice Questions)
(100 Questions of one mark each)

1. **BASIC ELECTRICAL ENGINEERING :** (10 Marks)
Principle of direct and alternating current and circuits, concept of frequency and wave form, instantaneous, maximum and average values, form factor for sinusoidal wave. Concept of phase and phase difference, D.C. and A.C. circuits, concept of resistance, inductance, capacitance. Power and power factor. Alternating voltage applied to resistance and inductance in series and RLC series/ parallel circuits, practical importance of power factor. Concept of three phase system, star delta connection, voltage and current relationship.

2. **ENERGY CONSERVATION ACT & I.E.RULES:** (10 Marks)
Energy conservation Act 2001, No cost measures, Low cost and higher cost measures, Indian Electricity Act 2003, Indian Electricity Rules as amended up to date. Labeling and star rating of equipments.

3. **ELECTRICAL MEASURING INSTRUMENTS:** (10 Marks)
Electrical properties and instruments for their measurement. Working principles and construction of measuring instruments such as Ammeters, Volt meters (moving coil and moving iron type), Watt meter, KWH meter, Frequency meter, Power factor meter. Difference between volt meter and Ammeter, Difference between watt meter and energy meter. Extension of range of A.C. & D.C. instruments. Use of multi-meter, ohm meter, megger, earth tester etc.

4. **ELECTRICAL MACHINES AND POWER TRANSFORMER:-** (10 Marks)
Basic concept of rotating machines. Principles of generating and motoring action and relationship between terminal voltage and induced EMF. Factors determining the speed of motor. Different types of excitations. Starting and speed control. Losses, efficiency and applications. Relationship between the rotor I^2R loss and rotor slip. Causes of low power factor of motors.

Definition and application of transformers, voltage regulation, open circuit test, losses, efficiency, cooling of transformers, Parallel operation of transformers. Instrument transformers.

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5. **LIGHTING :** (10 Marks)
Designing and Estimation of Internal Electrical Installation and Fans, Compound light, including Main boards and Sub distribution boards. Units and standards, Various types of fittings and luminaries and their applications. Modern trend in Energy efficient lighting installations.
6. **AIR-CONDITIONING:** (10 Marks)
Meaning of A/C, Air conditioning methods, unit of refrigeration, Co-efficient of performance. Various refrigerants such as R11, R22 & R407 used in air-conditioning, their important properties and application. Various controls, solenoid valves, thermostat, LP/HP cut out, oil safety switch. Concept of dry and wet temperature, dew points, relative humidity, absolute humidity, humidity ratio, Enthalpy. Psychometric of moist air, Psychometric chart and its uses. Description of various types of heat load, Sensible and latent heat load, sensible heat factor, by pass factor. Description of room air conditioner, package air conditioner. Measuring instruments such as pressure gauge, sling psychomotor, flow meter, Tacho-meter, anemometer etc. with their working principles.
7. **SUB STATION :** (10 Marks)
Different types of A.C. Switchgears, H.R.C. fuses and their application, rupturing capacity. Type of Substations, factors governing the location of substation, Space planning, determination of the rating of circuit breakers and switchgear. Different type of Bus bars system, connections, current carrying capacity Selection of capacity of Transformer and DG Set. Protection devices and safeties in Sub Station, their testing and calibrations. Power factor improvement capacitors & their selection.
8. **EARTHING AND LIGHTNING CONDUCTOR** (10 Marks)
Design, layout, and installation procedures for Building / Exchange earth. Lightning protection and Surge protection devices.
9. **PUMPS :** (10 Marks)
Various types of water lifting Pumps, their selection and application, installation procedures and specifications. Various type of starters , their selection. Maintenance aspects of pumps.
10. **FIRE DETECTION AND FIRE FIGHTING:** (10Marks)
Different type of fire – extinguishers, their use and applications, Various type of Fire – detectors, their selection criteria.

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List of the Examination Centres for LDCE for promotion from Group 'C' to JTO(E)

Sr. No	Name of the BSNL Coordinating Circle authorized to coordinate for the LDCE for JTO (E) Circles as mentioned	Name of Circles	Name of the Examination Centre
1	Andhra Pradesh	Andhra Pradesh	Hyderabad
2	Andaman & Nicobar	Andaman & Nicobar	Port Blair
3	Assam	Assam	Guwahati
4	Bihar	Bihar	Patna
5	Chhattisgarh	Chhattisgarh	Raipur
6	Gujarat	Gujarat	Ahmedabad
7	Haryana	Haryana	Ambala
8	Himachal Pradesh	Himachal Pradesh	Shimla
9	Jammu & Kashmir	Jammu & Kashmir	Jammu
10	Jharkhand	Jharkhand	Ranchi
11	Karnataka	Karnataka	Bangalore
12	Kerala	Kerala	Thiruvananthapuram
13	Madhya Pradesh	Madhya Pradesh	Bhopal
14	Maharashtra	Maharashtra	Mumbai
15	Northern Telecom Region [New Delhi]	Northern Telecom Region [New Delhi]	New Delhi
16	North East - I	North East - I	Shiling
17	North East - II	North East - II	Dimapur
18	Odisha	Odisha	Bhubaneswar
19	Punjab	Punjab	Chandigarh
20	Rajasthan	Rajasthan	Jaipur
21	Tamilnadu	Tamilnadu & Chennai Telecom. District	Chennai
22	Uttar Pradesh [East]	Uttar Pradesh [East]	Lucknow
23	Uttar Pradesh [West]	Uttar Pradesh [West]	Meerut
24	Uttaranchal	Uttaranchal	Dehradun
25	West Bengal	West Bengal & Calcutta Telecom. District	Kolkata

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