



भारत संचार निगम लिमिटेड
(भारत सरकार का उपक्रम)
BHARAT SANCHAR NIGAM LIMITED
(A Govt. of India Enterprise)

Recruitment Branch
BSNL Corporate Office, Room no: 227A,
2nd Floor, Eastern Court, New Delhi-110001

No. 12-1/2016-Rectt.

Dated: 01/03/2016

To

Chief General Managers Territorial Telecom Circles, BSNL,
Chief General Managers Kolkata/Chennai Telephone Dists., BSNL,
Chief General Manager Mtce. NTR, BSNL, New Delhi.

Subject:- Holding of Limited Internal Competitive Examination (LICE) for promotion to the grade of Junior Telecom Officer (Telecom) (JTO (T)) in BSNL.

Sir,

Kindly refer to this Office letter of even no. dated 28/01/2016, on the above mentioned subject. As mentioned at para 3 of the aforesaid letter, a model notification for holding the Limited Internal Competitive Examination (LICE) for promotion from Group 'C' employees to the grade of Junior Telecom Officer (Telecom) (JTO (T)) in BSNL to be issued by the Circles is enclosed herewith. However, in partial modification to this Office letter of even no. dated 28/01/2016, it has been decided with the approval of the Competent Authority that the aforesaid LICE is to be held for the vacancy year 2013-14 only in view of the Court verdict. Accordingly, the Circles are requested to calculate the vacancies as under :

- i) Total no. of posts of JTO (T) under 50% Internal Quota in the Circle for the vacancy year 2013-14, without counting the no. of officials absorbed through absorption process, as per JTO (T) Recruitment Rules-2014 in the Circle, which is to be taken into account against the vacancy year 2015-16 onwards;
- ii) Category-wise vacancy position (OC, SC, ST) for the vacancy year 2013-14.

2. All the Telecom Circles are required to prepare the notification as per the model notification in respect of their Circles, after calculating the vacancy positions in respect of their Circle. The notification is to be issued by all the Circles on 04/03/2016.

3. **The Circles must strictly adhere to the time schedule mentioned for the aforesaid LICE.**

4. The receipt of this letter may please be acknowledged and the Circles must furnish a copy of their notification issued for the aforesaid LICE to the Recruitment Branch of BSNL CO through the e-mail IDs provided vide this Office letter of even no. dated 28/01/2016.

Enclosure : As above

(Handwritten signature)
(K. D. Das)

Asstt. General Manager (Rectt.-I)

Copy to :-

1. PPS to Director (HR), BSNL Board
2. GM (Estt.), BSNL Corporate Office
3. BSNL Intranet Portal
4. Guard File

(Handwritten signature)

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

Exam Website: www.externalexam.bsnl.co.in
www.internalexam.bsnl.co.in

Email: agmrectt1@bsnl.co.in Tel: 011 23325491/23327398
agmrectt1@gmail.com Fax: 011-23325907

Bharat Sanchar Nigam Limited
(A Govt. of India Enterprise)
Corporate Office
(Personnel-IV Section)

[Establishment Branch]

Bharat Sanchar Bhawan, New Delhi-110 001

No. 5-11/2009-Pers.IV
Dated: Nov. 01, 2011.

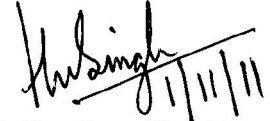
TO,

CGMs All Telecom Circles,
CGMs Kolkata & Chennai Telephone Districts,
CGMs Project/ Mtce./ Telecom Factories/ Q&A/ Inspection/ NCES/ Broad Band
Network/ IT/ ITPC/ NATFM/ NETF/ Telecom Stores Circles,
CGMs ALTTTC/BRBRAITT,
All Other Administrative Units,
Bharat Sanchar Nigam Limited.

**Subject:- Forwarding of Revised Scheme and Syllabus for Limited Internal
Competitive Examination (LICE) for filling up posts in the cadre of
JTO(Telecom) under both 35% and 15% quota-**

In partial modification to this office letter of even No dated 20-10-2009, I am directed to enclose herewith a copy of revised Scheme for Limited Internal Competitive Examination (LICE) for filling up posts in the cadre of JTO (Telecom) under both 35% and 15% quota for favour of further necessary action at your end please. The Revised scheme shall be applicable for the examinations to be held in future.

Encl: As above (Four pages)



(Harsh Vardhan Singh)
Addl. Genral Manager (Estt)

TF: 01123734152 FAX: 01123734051

Copy to:-

1. P.S. to MOC&IT/ MOS (C&IT).
2. CMD, BSNL, New Delhi.
3. DIRECTOR, BSNL CO.
(HR)/ (CFA)/ (CM)/ (Finance)/ (Enterprise).
4. EXECUTIVE DIRECTOR, BSNL CO. (CA)/(CN)/(F).
5. GM
(Pers)/ (Estt.)/ (TF)/ (Trg.)/ (Rectt.), BSNL CO.
6. DDG(Estt)/ Director (Staff), DoT.
7. DGM
(Pers.)/ (Estt)/ (TF)/ (Trg.)/ (Rectt.), BSNL CO.
8. ADG (PAT)/ (SNG), DoT.
9. AGM (Pers-I)/ (Pers-II)/ (Pers-III)/ (Pers-IV)/ (Pers-V), BSNL CO.
10. All Unions/Associations concerned.
11. OL section for Hindi version.
12. Intranet BSNL.
13. Spare copy.

Subject: Scheme and Syllabus for the Limited Internal Competative examination (LICE) for filling up vacancies in the cadre of Junior Telecom Officer (Telecom.) under 35 % 15% Internal Quota

1. SCHEME OF EXAMINATION :-

1.1 The Question Paper will consists of two parts as given under :

Subject	Maxi.Marks-150	Duration
Part A General English & General Studies (Objective Multiple choice Questions)	50 Marks (50 Question of one Mark each)	3 Hrs
Part B -Technical Paper (Specialization) (Objective Multiple Choice Questions)	100 Marks (100 Questions of one Mark each)	

1.2 The minimum qualifying marks in the examination will be 30% in each part and 37% in aggregate for OC category candidates and 23% in each part and 30% in aggregate for SC/ST category candidates . There would be negative marking and for each wrong answer 25% of the mark of that question would be deducted.

2 . SYLLABUS :

2.1 Part A General English & General Studies - 50 Marks.

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

2.1.1 General English-25 Marks

The question paper in Genral English shall be designed to test the candidate's understanding of English.

The pattern of question shall be broadly as follows:-

- (i) Comprehension of given passages.
- (ii) Usages and vocabulary
- (iii) Grammer

2.1.2 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 & International 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.

2.2 Part B- TECHNICAL PAPER-(SPECIALIZATION) (100 Marks)

Standard of paper : The standard of Paper shall be that of an Engineering Diploma.

Computer Architecture:

Computer architecture, basic computer organization and design programming, CPU, I/O organization, memory organization. Control unit design. Familiarization with DOS and Windows-concept of file, directory, folder, Number systems, Programming-Elements of a high level programming language, PASCAL , C:Use of basic data structures. Web Page Design; Scripting Language - Perl / CGI / JavaScript; Fundamentals of JAVA Programming; Advanced Features of JAVA Programming.

Data Communication and Computer Network:

Data Network and Networking Basics; MAC & Data Link Layer Network, Transport (TCP/IP). Introduction to Computer Network, LAN, MAN, WAN, Network essentials, Internet addresses, ARP, RARP, Internet protocols, user data, gram protocol, transmission control protocol, routines, internet multi testing, socket interface, domain name system, applications.

Data Structure and Algorithms :

Basis concepts of data representation, introduction to algorithms design and data structure, Arrays stacks and queues, linked lists, storage allocation and garbage collection, symbol tables, Searching, Sorting and Merging Techniques.

Database Management System :

Database, Data models, rational algebra and normalization, statistical quality level, distributed and object data basis.Introduction to the Relational Model; Normalisation and Query Processing; Recovery, Concurrency Management and Database Security.

Electronic / Electrical Measurement & Measuring Instrument :

Electrical Measuring Instruments, Watt meters and energy meters, measurement of resistance, measurement of inductance and capacitance, electronic voltmeters, audio and radio frequency measurements, A F & R F Power measurements, digital instruments.

Electrical Installation & Maintenance :

Single-Phase supply vs. 3 Phase supply, Star Delta connections, relation between phase & line voltage power factor. All types of motor and generators-AC & DC transformers, starters, rectifiers, inverters, batteries. Installation, commissioning, earthing, insulation testing and maintenance, preventive maintenance, electrical accidents and safety measures, switchgear, sub-stations, maintenance of relays and circuit breakers. A.C. Circuits, Circuit Theorems, Four Terminal Passive Networks, Coupled circuits and their analysis, Passive filters, Lightning protection, power electronics application in control of drivers, Refrigeration & air-conditioning.

Fundamentals of Digital Circuits :

Fundamentals of digital electronics ,Transister as a switching elements; Boolean algebra, Simplification of Boolean functions, Karnaugh Map and applications; Number System, IC Logic Gates, Logic-Circuits, Encoders and Decoders, binary code converters, Arithmetic Logic Units (ALU), DTL, TTL, NMOS, PMOS AND CMOS gates and their comparison; Combination logic circuits; Half adder, full adder; Digital Comparator, Multiplexer Demultiplexer; ROM and their applications. Flip-flops, R-S,J-K,D and T Flip-flops; Different type of counters and registers; A/D and D/A converters;

Communication Systems:

Amplitude, frequency and phase modulation, their generation and demodulation, Noise. PCM, basic principles of SPC Exchanges. Quantization & Coding; Time division and frequency division multiplexing; Equalization; Optical communication- in free space & fibre optic; Propagation of signals at HF,VHF,UHF and Microwave frequency; Satellite Communication.

Foundation in Information Technology :

Information System - Hardware; Software; Software Engineering; Operating Systems.

Computing:

An Object Oriented Approach : Introduction to Object Oriented Concepts; Object Oriented Programming Language; Object Oriented Analysis and Design.

Discrete Electronic Devices & Circuits :

The P-N Junction, Junction Diode, Zener Diode, B.J.T. configurations and biasing, low frequency low signal Hybrid Models of BJT; JFET, MOSFET, C-MOS, Photo-Electric Devices, Feed back Amplifiers, Oscillators, R.F. Voltage Amplifiers using BJT, Special Semiconductor Devices.

Microprocessors:

Architecture & programming of 8086/8088, Microprocessor based data acquisition, memory address & DMA controllers, arithmetic co-processor, other micro processors, micro processor applications. Study of Peripheral Chips : 8255, 8279, 8155, 8259. Study of ADC 0808, DAC 0800.

Radio Communication Systems :

Principles of Radio Communication, A.M., F.M. Radio, Phase Modulation. Signal conditioning and Transmission Study of special chips, output interfacing, output instruments-indicators, recorders, data acquisition systems, data loggers, servo mechanism, electronic process control instrumentation. Wave propagation, Microwave devices & components, microwave measurements, antenna fundamental & their characteristic. Audio Engineering, sound transducers, sound recording & reproduction, sound transmission, radio transmission, radio reception.



Annexure-C**List of the Examination Centres for LICE for promotion to the grade of JTO(T)**

Sr. No	Name of the BSNL Coordinating Circle authorized to coordinate for the LICE for JTO (T) 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	Shillong
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