



**No. 1-1/2015-Recrtt.**  
**BHARAT SANCHAR NIGAM LIMITED**  
 (RECRUITMENT BRANCH)

**SPECIAL RECRUITMENT DRIVE FOR PERSONS WITH DISABILITIES (PWD)  
 CANDIDATES IN POSTS OF JTO (T) IN BSNL FROM EXTERNAL CANDIDATES**

**STARTING OF ONLINE REGISTRATION OF APPLICATION : 01-12-2015**

**LAST DATE OF ON LINE REGISTRATION : 10-12-2015**

**DATE OF WRITTEN TEST : 20-12-2015**

Bharat Sanchar Nigam Ltd. (BSNL) will conduct a Special Recruitment Drive (SRD) for Persons With Disabilities (PWD) candidates for filling up 23 posts of Junior Telecom Officer (Telecom) {JTO (T)}. All PWD candidates fulfilling the prescribed eligibility conditions and possessing qualification as detailed in **Annexure-A** are eligible to apply for the above said post.

In respect of PWD persons, candidates with following disabilities will be permitted :-

- |                      |   |  |
|----------------------|---|--|
| Hearing Impairment   | - | Partially deaf                           |
| Locomotor Impairment | - | One arm or one leg or both legs affected |

**Degree of Disability for PWDs :- In case of PWD candidates only such persons would be eligible for reservation in service/posts, who suffer from not less than 40 percent of relevant disability. Candidates would have to submit a Disability Certificate issued by a Competent Authority in the Annexure-E.**

**(i) For Hearing Impairment :**

Physical Requirement	Category of the Disabled suitable for the job
S-Work performed by Sitting B-Work performed by Bending SE-Work performed by Seeing RW-Work performed by Reading & Writing	PD- Partially Deaf

**(ii) For Locomotor Impairment :**

Physical Requirement	Category of the Disabled suitable for the job
(1) S-Work performed by Sitting (2) B-Work performed by Bending (3) SE-Work performed by Seeing (4) RW-Work performed by Reading & Writing	(1) BL-Both Legs affected but not arms (2) OA-One Arm affected (R or L) (a) Impaired reach (b) Weakness of grip (c) Ataxic (3) OL-One Leg affected (R or L) (4) BH-Stiff Back and hips (cannot sit or stoop)

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## 1. Scale of Pay:-

The Junior Telecom Officer (Telecom) shall be appointed in the IDA pay scale [E-1] of Rs 16,400-40,500/- with annual increment @ 3% of basic pay plus IDA, HRA, Perks, Medical Benefits, etc. admissible as per company rules.

## 2. Selection for a Particular Circle & Service liability:-

The BSNL comprises a number of territorial Circles and functional Circles. A list of the existing territorial Circles, their respective headquarters etc., appears in **Annexure 'B'**.

The Junior Telecom Officer (Telecom) is a Circle-based Cadre and the candidates would be selected against the vacancies of a particular Circle. The candidates are required to serve minimum of 5 years in that particular Circle only or until they are promoted to All India Cadre, whichever is earlier. However, BSNL has the right to post any selected JTO (T) to any of the Circles either temporarily or on permanent basis. The decision of BSNL in this regard shall be final and binding. The service conditions, seniority etc. of selected candidates will be determined as per prevailing rules of the Company from time to time.

## 3. Eligibility:-

3.1 **Nationality:** Only Indian Nationals would be eligible to apply.

3.2 **Educational Qualifications:** Applicant must possess the educational qualifications as given in **Annexure-A**, on the closing date of application for JTO (T) Exam in BSNL.

## 4. (a) Age:-

Candidate shall not be below 18 years and not exceed 30 years as on the closing date of the receipt of the Online applications from the candidates (as on 10<sup>th</sup> December, 2015). However, the upper age limit is relaxable as per the standing instructions of Government of India for the following categories :-

- i) Upto five (5) years for PWD category OC candidates
- ii) Upto ten (10) years for PWD category SC/ST candidates
- iii) Upto eight (8) years for PWD category OBC candidates

**Note :** The date of birth entered in matriculation or Secondary School Leaving Certificate or in a Certificate recognized by an Indian University as equivalent to Matriculation or in an extract from a Register of Matriculates maintained by a University, which must be certified by the proper authority of the University or in the Higher Secondary or an equivalent examination certificate. The certificates are required to be submitted only at the time of document verification. No other document relating to age like horoscopes, affidavit, birth extracts from Municipal Corporation, Service records and the like will be accepted.

## 4. Disqualifications: No person

- (i) Who has entered into or contracted a marriage with a person having a spouse living, or
- (ii) Who, having a spouse living, has entered into or contracted marriage with any person; Shall be eligible for appointment.

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Provided that the Government may, if satisfied that such marriage is permissible under the personal law applicable to such person and the other party to the marriage and there are other grounds for so doing, exempt any person from the operation of this rule

#### 5. Mode of selection and nature of Question Paper:

The mode of selection is through an All India Competitive Examination. The examination will consist one paper of three hours duration having objective type multiple choice questions, which is to be conducted through Online examination mode.

#### 6. Scheme of examination & Syllabus:

The pattern of the question paper will be multiple choice objective types with negative marking. All candidates will undergo a common multiple-choice type examination of three hours consisting of the following three sections:

Components	Number of Questions	Marks	Duration
Section-I - Engineering Stream	50	100	3 hours 10.00 A.M. to 1.00 P.M.
Section -II - Engineering Stream	50	100	
Section-III - General Ability Test	20	40	
<b>Total</b>	<b>120</b>	<b>240</b>	

Syllabus for each of the three sections has been detailed in Annexure-C.

#### 7. Minimum qualifying standards

BSNL may fix at its discretion minimum qualifying marks for each section as well as in the aggregate. Candidates obtaining less than minimum-qualifying marks in any of the sections or in aggregate shall not be considered for inclusion in the merit-list.

BSNL reserves the right to change the number of vacancies of JTO (T) as per Circle's requirement.

The appearance of the name in the merit-list does not confer any right on the candidate for employment. A final call letter/ appointment letter will be issued to the candidate after completion of all other formalities.

No request for revaluation of answer books shall be entertained under any circumstance.

#### 8. Bond and Training

- (i) The candidates selected shall execute a Bond in the format as specified by the Company to serve in BSNL for a period of five years from the date of their appointment as Junior Telecom Officer (Telecom).
- (ii) The candidates selected shall have to successfully undergo training as per the training plan laid down by the Company.

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## 9. Choice of Examination Centre

The JTO (T) Exam will be held in **25** BSNL Territorial Circles only at their respective headquarters. The details of the Territorial Circle where the examination will be conducted are given in **Annexure-B**.

## 10. Online Application and Fee for examination:

Candidates applying for Junior Telecom Officer (Telecom) {JTO (T)} posts are required to apply online for which link shall be provided through BSNL web site [www.externalexam.bsnl.co.in](http://www.externalexam.bsnl.co.in). Applications will be considered only through the online registration process which is to start from 01-12-2015 and will be closed on 10-12-2015. Therefore, candidates are advised to visit our web site ([www.bsnl.co.in/](http://www.bsnl.co.in/)) for any updates regarding Examination. All candidates applying for JTO (T) posts are required to read all the instructions provided on website [www.externalexam.bsnl.co.in](http://www.externalexam.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.

### Fee:-

The prescribed examination fee Rs.750/-(Rupees Seven Hundred Fifty only) for the candidates shall be paid through online mode i.e. Internet Banking, Credit Card, Debit Card only.

**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.**

## 11. Closing date for receipt of Online Registration Forms

- (i) Registration forms complete in every respect must be submitted Online on or before 10-12-2015. 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.bsnl.co.in](http://www.bsnl.co.in) / [www.externalexam.bsnl.co.in](http://www.externalexam.bsnl.co.in) at least before 5 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.
- (ii) 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 appointment. Appointment will be solely subject to fulfillment of all eligibility conditions.

*14/12/2015*

## 12. Travelling Allowance

- 12.1 The candidates belonging to SC/ST categories will be entitled to TA as per provisions of Ministry of Finance (Department of Expenditure) O.M. No. 19014/3/77-E.IV (B) dated 17/02/1978, as amended from time to time.
- 12.2 The unemployed SC/ST candidates called for the Written Test shall be entitled for reimbursement of second class (Sleeper) rail fare from their place of residence to the nearest Examination Centre, subject to production of ticket.
- 12.3 The SC/ST candidates also have to produce a certificate of unemployment issued by MP/MLA or a designated Government Officer of the place where the candidate normally reside.
- 12.4 The form for reimbursement of TA in respect of SC/ST candidates for attending Written Test is given at **Annexure-D**.

13. No request for withdrawal of candidature received from a candidate will be entertained under any circumstances. Any dispute in regard to the recruitment will be subject to the Courts/Tribunals having jurisdiction at New Delhi.

14. BSNL reserves the right to modify/amend any of the terms & conditions of this recruitment at any point of time.

## 15. Disqualification

'Violation of any of the instructions issued along with the admission certificate or at any other stage will be liable the candidate to be disqualified in the examination.'

### NOTE :

1. Candidates in their interest are advised to refer to the BSNL website ([www.bsnl.co.in](http://www.bsnl.co.in)) or examination website ([www.externalexam.bsnl.co.in](http://www.externalexam.bsnl.co.in)) from time to time for any further instruction/information.
2. For any query, the applicant may contact AGM (Rectt.), BSNL Corporate Office, New Delhi at his Telephone No. 011-23352491 or 011- 23765386 during office hours.

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ESSENTIAL QUALIFICATIONS FOR JTO (T) CANDIATES

Name of the Post	Essential Qualification for External Candidates
<b>Junior Telecom Officer (Telecom)</b>	<p>Bachelor of Engineering Degree or equivalent from a Central Govt./State Govt. recognized Institution/University in any of the following disciplines :-</p> <ol style="list-style-type: none"><li>1. Telecommunications</li><li>2. Electronics</li><li>3. Radio</li><li>4. Computer</li><li>5. Electrical</li><li>6. Information Technology (IT)</li><li>7. Instrumentation</li></ol> <p>Or</p> <p>M. Sc. (Electronics)/M. Sc. (Computer Science) From recognized University incorporated by an Act of the Central or State Legislature in India or/and Educational Institution established by an Act of Parliament or declared to be deemed as University under Section 3 of the UGC Act, 1956</p>

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Annexure-B

List of the Examination Centres for the External Candidates of JTO (T) SRD Examination

Sr. No	Name of the BSNL Coordinating Circle authorized to coordinate for the JTO (T) SRD Exam (External) for 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	Bhubaneshwar
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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**Scheme and Syllabus for the Recruitment of  
Junior Telecom Officers(Telecom)**

For Direct Recruitment of Junior Telecom Officers, an objective type Examination of 3 hours duration consisting of following sectional papers will be conducted:

**SCHEME**

- A. Engineering Stream Section - I
- B. Engineering Stream Section - II
- C. General Ability Test Section - III

- 1. The standard of paper in Engineering subjects will be that of Engineering Degree Examination of an Indian University.
- 2. In the general ability test, special attention will be paid to assess the candidate's capacity for general awareness. The standard of paper in general ability test will be such as may be expected of an Engineering Graduate.
- 3. The syllabus for engineering stream papers will be as given below.

**SYLLABUS**

**SECTION - I**

**1. Materials and components**

Structure and properties of Electronic Engineering materials, Conductors, Semiconductors and Insulators, Magnetic, Ferroelectric, Piezoelectric, Ceramic, Optical and Superconducting materials. Passive components and characteristics, Resistors, Capacitors and Inductors; Ferrites, Quartz crystal, Ceramic resonators, Electromagnetic and Electromechanical components.

**2. Physical Electronics, Electron Devices and ICs**

Electrons and holes in semiconductors, Carrier Statistics, Mechanics of current flow in a semi-conductor, Hall effect; Junction theory; Different types of diodes and their characteristics; Bipolar Junction transistor; Field effect transistors; Power switching devices like SCRs, CTOs, power MOSFETs; Basics of ICs-bipolar, MOS and CMOS types; Basics of Opto Electronics.

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**Network theory**

Network analysis techniques: Network theorem, transient and steady state sinusoidal response, Transmission criteria: delay and rise time Elmore's and other definition, effect of cascading. Elements of network synthesis.

**4. Electromagnetic Theory**

Transmission lines: basic theory, standing waves, matching applications, microstrip lines; Basics of waveguides and resonators; Elements of antenna theory.

**5. Electronic Measurements and instrumentation**

Basic concepts, standards and error analysis; Measurements of basic electrical quantities and parameters; Electronic measuring instruments and their principles of working: analog and digital, comparison, characteristics, applications. Transducers; Electronic measurements of non-electrical quantities like temperature, pressure, humidity etc. Basics of telemetry for industrial use.

**6. Power Electronics**

Power Semiconductor devices, Thyristor, Power transistor, MOSFETs, Characteristics and operation. AC to DC convertors; 1-Phase and 3-phase DC to DC Convertors. AC regulators. Thyristor controlled reactors, switched capacitor networks. Inverters: Single-phase and 3-phase. Pulse width modulation. Sinusoidal modulation with uniform sampling. Switched mode power supplies.

**SECTION-II**

**1. Analog Electronic Circuits**

Transistor biasing and stabilization, Small Signal analysis. Power amplifiers. Frequency response, Wide band techniques, Feedback amplifiers. Tuned amplifiers. Oscillators. Rectifiers and power supplies. Operational Amplifier, other linear integrated circuits and applications. Pulse shaping circuits and waveform generators.

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**Digital Electronic Circuits**

Transistor as a switching element; Boolean algebra, simplification of Boolean functions, Karnaugh Map and applications; IC Logic gates and their characteristics; IC logic families: DTL, TTL, ECL, NMOS, PMOS and CMOS gates and their comparison; Combinational 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 types of counters and registers; waveform generators. A/D and D/A convertors. Semiconductor memories.

**3. Control Systems**

Transient and steady state response of control systems; Effect of feedback on stability and sensitivity, Root locus techniques; Frequency response analysis. Concepts of gain and phase margins; Constant-M and Constant-N Nichol's Chart; Approximation of transient response from Constant-N Nichol's Chart; Approximation of transient response from closed loop frequency response; Design of Control Systems, Compensators; Industrial controllers.

**4. Communication systems**

Basic information theory: Modulation and detection in analogue and digital systems; Sampling and data reconstruction. Quantization & Coding; Time division and frequency division multiplexing; Equalisation; Optical Communication: in free space & fibre optic; Propagation of signals at HF, VHF, UHF and microwave frequency; Satellite communication.

**5. Microwave Engineering**

Microwave Tubes and solid state devices, Microwave generation and amplifiers, Waveguides and other Microwave Components and Circuits, Microstrip circuits, Microwave antennas, Microwave Measurements, MASERS LASERS; Microwave Propagation. Microwave Communication Systems-terrestrial and satellite based.

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6. **Computer Engineering**

Number Systems; Data representation; Programming; Elements of a high level programming language PASCAL/C; use of basic data structures; Fundamentals of computer architecture processor design; Control unit design; Memory organization. I/O System Organization. Personal computers and their typical uses.

7. **Microprocessors**

Microprocessor architecture - Instruction set and simple assembly language programming. Interfacing for memory and I/O. Applications of Microprocessors in Telecommunications and power system.

**SECTION-III**

**General ability test**

The candidate's comprehension and understanding of General English shall be tested through simple exercises. Questions on knowledge of current events and of such matter of everyday observation and experience in their scientific aspects as may be expected of an educated person. Questions will also be included on events and developments in Telecommunications, History of India and Geography. These will be of a nature, which can be answered without special study by an educated person.

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**BHARAT SANCHAR NIGAM LTD.**  
(A GOVERNMENT OF INDIA ENTERPRISE)  
OFFICE OF CHIEF GENERAL MANAGER  
-----TELECOM CIRCLE

Form for reimbursement of Travelling Allowance in respect of SC/ST candidates for attending \_\_\_\_\_  
For the post of \_\_\_\_\_ held on \_\_\_\_\_ at \_\_\_\_\_ centre

1. Name of Applicant :
2. Roll Number :
3. Whether SC or ST :
4. Residential Address :  
(Attested photocopy of the certificate enclosed)
5. Address from where journey has been performed :  
(As given in Application Form)
6. Whether employed or not :
7. If employed, whether in Central/State Govt. or  
Central/State Govt. Corporation, Public Sector  
Undertaking, Private Sector etc. :
8. Details of Journey and Rail/Bus fare etc. :

Date of Journey	From	To	Mode of Journey	Class of Travel Bus/Rail	Distance travelled (one side)	Ticket Number	Fare (in Rs.)

**CERTIFIED THAT**

- (i) I am unemployed and a certificate of unemployment issued by MP/MLA or a Gazetted Officer of the place where I normally reside is enclosed.
- (ii) I have not claimed / will not claim T.A. for this journey from any other source.
- (iii) I have actually travelled by the shortest route and by the class/mode for which I have preferred the claim
- (iv) I do hereby declare that all the statements made in the application are true, complete and correct to the best of my knowledge and belief. I understand that in the event of any particular information given above four false or incorrect, necessary action as deemed fit may be taken by BSNL.

**Signature of Applicant**

Dated:

- Note: 1. Candidate will have to submit original ticket for inward journey.  
2. The payment will be made by BSNL through cheque.

**FOR USE OF BSNL**

Verified by

(Signature of Designated Officer of BSNL)

Admissible Amount Rs. \_\_\_\_\_

**Signature of D**

*14/10/2015*



C. Hearing impairment :

- (i) D-Deaf
- (ii) PD-Partially Deaf

(Delete the category whichever is not applicable)

2. This condition is progressive / non-progressive / likely to improve / not like to improve. Re-assessment of this case is not recommended / is recommended after period of \_\_\_\_\_ years \_\_\_\_\_ months.\*

3. Percentage of disability in his/her case is ..... percent.

4. Sh./Smt./Kum..... meets the following physical requirements for discharge of his/her duties :-

- |  |        |
|--|--------|
| (i) F-can perform work by manipulating with fingers. | Yes/No |
| (ii) PP-can perform work by pulling and pushing.     | Yes/No |
| (iii) L-can perform work by lifting.                 | Yes/No |
| (iv) KC-can perform work by kneeling and crouching   | Yes/No |
| (v) B-can perform work by bending                    | Yes/No |
| (vi) S-can perform work by sitting                   | Yes/No |
| (vii) ST-can perform work by standing                | Yes/No |
| (viii) W-can perform work by walking                 | Yes/No |
| (ix) SE-can perform work by seeing                   | Yes/No |
| (x) H-can perform work by hearing/speaking           | Yes/No |
| (xi) RW-can perform work by reading and writing      | Yes/No |

(Dr \_\_\_\_\_)  
Member  
Medical Board

(Dr \_\_\_\_\_)  
Member  
Medical Board

(Dr \_\_\_\_\_)  
Chairperson  
Medical Board

Countersigned by the  
Medical Superintendent/CMO/Head of  
Hospital (with seal)

\* Strike out which is not applicable.

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