



Lr. No. CGMT/PB/EST-229/DR-TTA/Ry-2012/Corr/14.

Dated at Port Blair the 25-04-2013

## **Direct Recruitment in the cadre of Telecom Technical Assistants (TTAs) in BSNL, Andaman & Nicobar Telecom Circle – Recruitment Year-2012.**

**Closing Date for submission of applications: 13.05.2013**

**Examination Date: 30.06.2013 (10.00 to 13.00Hrs)**

Applications are invited from the eligible Indian Citizens for the post of **Telecom Technical Assistants (TTAs)** in the non-executive category, which is a Secondary Switching Area (SSA) Cadre. Selection of candidates will be through a Competitive Examination.

**1. Scale of Pay: Rs. 13600 – 25420 (Revised IDA pay scales).**

**2. On Selection / Appointment,** candidate has to serve anywhere in Andaman & Nicobar Telecom District including in other non-recruiting Units of BSNL, like Eastern Telecom Region (ETR), Eastern Telecom. Projects (ETP) including satellite project, Quality Assurance (QA), and Testing & Development (T&D) etc., and as per TTA Recruitment Rules-2001.

### **3. Eligibility:**

(a) Indian Nationals are only eligible to apply.

(b) Education:

3 Years Engineering Diploma from a recognized Institution / University in any of the following disciplines

- i. Telecommunications Engineering
- ii. Electronics Engineering
- iii. Electrical Engineering
- iv. Radio Engineering
- v. Computer Engineering
- vi. Instruments Technology
- vii. Information Technology **or**
- viii. M.Sc (Electronics).

(c.) Age: Applicant should be between 18 and 27 years, as on the closing date for submission of applications.

- i. However, the upper age limit is relaxable by 3 years for OBC candidates and by 5 years for SC/ST candidates.
- ii. For PH candidates, the age is relaxable by 10 years for OC candidates, 13 years for OBC, 15 years for SC/ST candidates.
- iii. In case of BSNL Employees, age is relaxed up to 40 years for OC candidates, up to 43 years for OBC and up to 45 years for SC/ST Candidates.
- iv. Ex. Servicemen are eligible for relaxation in age as prescribed by the Central Government.

**4. Registration in Employment Exchange:** Registration in Employment Exchange is not mandatory. However, it would be preferable if the applicant has registration in the employment exchange in Andaman & Nicobar.

**5. Disqualification :** No person, (a). who has entered into or contracted a marriage with a person, having a spouse living or (b) who having a spouse living, has entered into or contracted a marriage with any person, shall be eligible for the appointment for the said post.

**6. Examination Fee :** An Examination Fee of Rs. 500/- is payable in the form of Indian Postal Order or crossed - Bank Demand Draft in favor of the Accounts Officer (Cash), % the Chief General Manager, Andaman & Nicobar Telecom Circle, BSNL, Port Blair. The fee shall not be accepted in any other form. The SC/ST candidates are exempted from paying Examination fee. The fee once paid neither be refunded under any circumstances nor can not be held in reserve for any other examination / selection.

**7. Enclosures to Application form :** Attested True Copies of (a) Educational Qualifications (b) Age Proof (SSLC / SSC Certificate showing date of birth) (c) Community Certificate in respect of OBC/SC/ST. OBC candidate should produce community certificate as per the proforma for the appointment of OBC in Central Government Service (with creamy layer clause) (e) Attested copy of Discharge Certificate in case of Ex. Servicemen. (f) No objection Certificate from the present employer if applicable). (g) Hall permit (Original / Duplicate) duly pasted the recent passport size photograph (h) Two self addressed stamped envelopes of 27x12 cms. (i) DD for Rs. 500/ (wherever applicable). (j) Copy of employment exchange registration card, if any.

All enclosures are annexed to the application properly. No column in the application should be left unfilled. The candidate shall affix their signature on all true copies / Xerox copies of certificates apart from attestation by a gazetted officer.

The vacancies are as follows.

Sl	Category	No of vacancies
1	OC	3
2	OBC	2
3	SC	0
4	ST	1
5	Ex-Servicemen	1
6	PH	0
<b>Total</b>		<b>7</b>

The above vacancies are provisional and are subject to change. Normal Rules on reservation for OBC/SC/ST/Ex. Servicemen shall be applicable as per instructions of Government of India issued from time to time.

**9. Already Employed in Govt. Service:** (a) BSNL employees are to be submitted their applications through proper channel only. (b) Candidates working in Government Service Central / State / Public Sector undertakings should send their application through the Head of their Office / Department so as to reach the concerned office on the due date. Application received after the due date from such offices will summarily be rejected.

**10.** Candidates are advised to send application to the Asst. General Manager (Admn & HR), % the Chief General Manager, BSNL, Andaman & Nicobar Telecom Circle, Telephone Bhawan, Middle Point, Port Blair -744101.

**11.** BSNL Reserves the right to amend any clause in this notification in future according to the rules and regulations prevailing at the time.

**12. Application Form :** The specimen of the application form is included in this advertisement. Neatly typed (only on one side of paper) in A4 size (30Cms x 20Cms) may be used for making application. Application without the signature of the candidate will be rejected outright. The envelope containing the application form should be superscripted as "**Application for the post of Telecom. Technical Assistant under Direct Recruitment-2012- in Andaman & Nicobar Telecom Circle, BSNL**" in bold letters on top of the envelope. The photo copy of the format given in the advertisement should not be used for applying and in case a candidate submits such an application, the same will not be entertained and no correspondence in this regard will be entertained. The applications complete in all respect along with the examination fee and other enclosures should be sent by Regd. Post / Speed Post / by Hand to the SSA concerned.

**13. Last Date:** Applications should be sent to AGM (Admn & HR), %CGMT, BSNL, Andaman & Nicobar Telecom District, Telephone Bhawan, Middle Point, Port Blair – 744 101, so as to reach them on or before **13.05.2013, by 5 pm**. Applications received without the required examination fee, attested copies of certificates, the applications received after the due date and incomplete applications will summarily be rejected. No further correspondence will be entertained in this regard.

**14. Training and Bond:** All candidates provisionally selected against the vacancies for direct recruitment shall execute a bond in the proforma as prescribed by the Company to serve in BSNL for a period of **5 years** from the date of their appointment as Telecom. Technical Assistant. The candidates selected have to undergo training successfully as per the training plan laid down by BSNL before their appointment as Telecom. Technical Assistant for a period as prescribed by BSNL from time to time.

**15. Probation:** The candidate appointed shall remain on probation for a period of Two years.

**16. Jurisdiction :** All candidates shall if so required, be liable to serve in the Territorial Army subject to provisions of Section 6A of the Territorial Army Act 1948 (56 of 1948) and the rules made there under.

**17. Mode of Selection:** Through Competitive Examination, followed by a Medical Test. Appointment and posting will be subject to successful completion of Pre-Appointment Training and other related verifications.

**18. Schedule of Examination: Time – Table**

Paper-I	Description	Maximum Marks	Date / Time
Part-I	General Ability Test	20	30.06.2013 10.00-13.00Hrs
Part-II	Basic Engineering	90	
Part-III	Specialization	90	

Admit Cards will be issued to the eligible candidates by the concerned SSA.

**19. Scheme & Syllabus:** For Scheme and Syllabus please visit BSNL Andaman & Nicobar Telecom Circle - website: [andaman-nicobar.bsnl.co.in](http://andaman-nicobar.bsnl.co.in)

**20.** Any dispute in regard to the recruitment will be subject to the Courts / Tribunals having jurisdiction Port Blair where the candidate submits his/her application.

**21. Minimum Qualifying Standards:** Minimum qualifying marks for OBC / SC / ST will be as per the rules in force. The selection of successful candidate will be strictly depending upon his/her position in the merit drawn on the basis of his/her performance in the Competitive Examination and as per the vacancy..

**22.** The Service Condition Seniority etc. of the selected candidates will be determined as per the rules of the BSNL issued from time to time in this regard.

**23. Examination Centers:** The Center / Venue for conducting the examination will be intimated along with the Hall Permit.

**24. For updates:** please visit our official website [andaman-nicobar.bsnl.co.in](http://andaman-nicobar.bsnl.co.in) regularly.

**Asst. General Manager (Admn & HR)  
% the Chief General Manger, BSNL,  
Andaman & Nicobar Telecom Circle,  
Telephone Bhawan, Middle Point,  
Port Blair – 744 101.**



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

Direct Recruitment Examination for the post of  
Telecom Technical Assistants (TTA)-2012 in BSNL,  
Andaman & Nicobar Telecom Circle

**Hall Permit**

Affix latest  
passport size  
photograph,

1. Name of the Candidate:

2. Father's Name :

3. DOB(dd-mm-yyyy):

4. Gender: 5. Community:

Signature of the Candidate

7. Roll No:

8. Examination Centre :

9. Date & Time of Exam :

*(to be filled by the office)*

Signature of Issuing Authority(with Stamp)



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Notice No CGMT/PB/EST-229/DR-TTA/Ry-2012/Corr/16,

Dated 25.04.2013

RECRUITMENT OF  
TELECOM TECHNICAL ASSISTANT (TTA)

BSNL Andaman & Nicobar Telecom Circle propose to recruit TTAs in revised IDA pay scale of Rs 13600-25420/-

Closing date for receipt of Application is 13.05.2013 for details, candidates may log on to **website: [andaman-nicobar.bsnl.co.in](http://andaman-nicobar.bsnl.co.in)**



13 Educational Qualification (Diploma in Engg & Above)

Name of the Engg Diploma/Degree with Discipline	University/Institute	Month & Year of Passing	As per the Advertisement whether eligible (Yes/No)

14 Permanent Address (in Capital letters)

<p>Name</p> <p>Father's/Husband's Name</p> <p>Address</p>	<div style="border: 1px solid black; height: 100px; margin: 0 auto;"></div> <p style="text-align: center;">Please affix one recent passport size photograph without attestation</p>
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15 Examination Fee (if applicable)

Sl No.	DD / IPO No	Date	Amount	Drawn Bank / Post Office

16. Declaration to be given by OBC candidate only, eligible to avail reservation applicable to OBC:

I ..... son/daughter of Shri ..... resident of village/town/city ..... Dist. .... State ..... hereby declare that I belong to the ..... community which is recognized as a backward class by the Government of India for the purpose of reservation in services as per orders contained in Department of Personnel and Training Office Memorandum No 36012/22/93-Estt(SCT) Dtd 8.9.1993. It is also declared that I do not belong to persons/sections (Creamy Layer) mentioned in column 3 of the Scheduled to the above referred office Memorandum dated 8.9.1993 and amended vide OM No 36033/3/2004-Estt.(Res.) Dtd 14.10.2008.

(Signature of the Applicant)

**DECLARATION TO BE SIGNED BY THE APPLICANT**

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 being found false or incorrect, my candidature for the post of Telecom Technical Assistant is liable to be rejected or canceled and in the event of any mis-statement or discrepancy in the particulars being detected after my appointment, my services are liable to be terminated forthwith without any notice to me.

I also understand that if appointed, I would rank junior to any TTA who had been appointed earlier by the erstwhile DoT/DTS/DTO or BSNL or any other candidate who had already qualified in the TTA examination but not appointed as TTA by BSNL so far, Similarly, candidates of TTA examination held prior to my appointment will also en-bloc senior to me.

Place:

Date:

(Signature of the Applicant)



## SCHEME & SYLLABUS FOR TTA DIRECT RECRUITMENT EXAMINATION

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The standard of Paper in General ability test will be such as may be expected of an Engineering Diploma holder. The standard of papers in other subjects will approximately be that of Diploma level of an Indian Polytechnic. There shall be a single multiple choice objective types Paper of 3 hrs duration as per given below:

<u>Paper</u>	<u>Marks</u>	<u>Time</u>
PART-I GENERAL ABILITY TEST	20	} 3hrs
PART-II BASIC ENGINEERING	90	
PART-III SPECIALIZATION	90	

Note: 1. The candidate is required to obtain minimum qualifying marks in each of these parts as may be prescribed by the BSNL.

### Detailed syllabus

#### **PART-I: GENERAL ABILITY TEST – 20 MARKS**

The candidate's comprehension and understanding of General English shall be tested through simple exercise such as provision of antonyms and synonyms, fill in the blanks and multiple-choice exercise etc. This shall also include questions on current events, general knowledge and such matters of everyday observation and experiences as may be expected of Diploma holder.

#### **PART-II: BASIC ENGINEERING –90 MARKS**

Detailed Syllabus is as under:

1. **Applied mathematics**: Co-ordinate Geometry, Vector Algebra; Matrix and Determinant; Differential Calculus; Integral Calculus Differential equation of second order; Fourier series; Laplace Transform; Complex Number; Partial Differentiation.
2. **Applied Physics**: Measurement- Units and Dimension; Waves, Acoustic, Ultrasonic; Light; Laser and its Application, Atomic Structure and Energy Levels.
3. **Basic Electricity**: Electrostatics; Coulomb's law, Electric field, Gauss's theorem, concept of potential difference, concept of capacitance and capacitors; Ohm's law, power and energy, Kirchhoff's voltage, current laws and their applications in simple DC circuits, Basic Magnetism;

Electric Magnetism; Electromagnetic Induction; Concept of alternating voltage & current; Cells and Batteries, Voltage and Current Sources, Thevenin's theorem, Norton's theorem and their applications.



4. **Electronics Devices and Circuits:** Classification of materials into conductor, semi conductor, insulator etc, electrical properties, magnetic materials, various types of relays, switches and connectors. Conventional representation of electric & electronics circuits elements. Active and passive components; semi conductor Physics; Semiconductor Diode; Bipolar transistor & their circuits; Transistor Biasing stabilisation of operating point; Single stage transistor amplifier; field effect transistor, Mosfet circuits application.

Multistage Transistor Amplifier; Transistor Audio Power Amplifier; feedback in Amplifier; Sinusoidal; Oscillators; Tuned Voltage Amplifier; Opto Electronics Devices and their applications; Operational Amplifier, Wave shaping and switching circuits.

Block diagram of IC. Timer (such as 555) and is working; Motivation Circuits; Time Base Circuits; Thyristory and UT Regulated Power Supply.

5. **Digital Techniques:** Applications and advantages of digital system; number system ( binary and hexadecimal); Logic Gates; Logic Simplification; Codes and Parity; Arithmetic Circuits; Decoders, Display Devices and Associated Circuits, Multiplexers and De- multiplexers; batches and Flip Flops; Counters; Shift Registers; Memories A/D and D/A converters.

### **PART-III: SPECIALIZATION – 90 MARKS**

Detailed Syllabus is as under:-

#### **1. Electrical:**

3 phase's vs single-phase supply, Star delta connections, relation between phase & line voltage power factor and their measurements; construction and principles of working of various types of electrical measuring instruments. All types of motor and generator –AC & DC transformers, starters, rectifiers, inverters, battery charges, batteries, servo and stepper motor, contactor control circuits, switchgear, relays, protection devices & schemes, substation, protective relaying, circuits breaker, generator protection. Transformer protection, feeder & lightening protection feeder & bus bar protection, lightening arrestor, earthing, voltage stabilizer & regulators, power control devices & circuits phase controlled rectifiers, inverters, choppers dual converters cycloconverters; power electronics application in control of drivers, refrigeration and air conditioning.

#### **2. Communication:**

Modulation and de- modulation – and principles and operation of various type of AM, FM and PM modulator/demodulator pulse modulation – TDM, PAM, PPM, PWM, Multiplexing. Principle and applications of PCM.

Introduction of basic block diagram of digital and data communication system. Coding error detection and correction techniques; digital modulation techniques – ASK, ICW, FSK, PSK; Characteristic/ working of data transmission circuits; UART, USART; Modems ; protocols and



their function; brief idea of ISDN interfaces; local area Net work, carrier Telephony – futures of carrier telephone system.

Microwave Engineering; Microwave Devices; Waves –guides; microwaves component; microwave Antennas; Microwaves communication systems- block diagram and working principle of microwave communication link.

### 3. Network, Filters and Transmission Lines:

Two port network; Attenuators; Filters; Transmission Lines and their applications characteristic impedance of line; concept of reflection and standing waves on a transmission line; Transmission line equation; principles of impedance matching, Bandwidth consideration of a transmission line.

### 4. Instruments and Measurements:

Specification of instruments- accuracy, precision, sensitivity, resolution range, Errors in measurements and loading effect; principles of voltage, current and resistance measurements; Transducers, measurement of displacement & strain forces & torque measuring devices, pressure measuring devices flow measuring devices, power control devices & circuits. Types of AC milli voltmeters – Amplifier rectifier and rectifier amplifier. Block diagram explanation of a basic CRO and a triggered sweep oscilloscope, front panel controls; impedance Bridges and Q- Meters.

Principles of working and specifications of logic probes, signature analyzer and logic analyzer, signal generator, distortion factor meter, spectrum analyzer.

### 5. Control System:

Basic elements of control system, open and closed loop system, concept of feedback, Block diagram of control system, Time lag, hysteresis, linearity concepts, self regulating and non- self regulating control systems. Transfer function of simple control components, single feedback configuration.

### 6. Time response of systems.

Stability Analysis Characteristics equation, Routh's table, Nyquist criterion, Relative stability, phase margin and gain margin.

Routh Hurwitz criteria, root locus techniques, Bode plot, Power plot, Gain margin and phase margin.

### 7. Microprocessors:

Typical organization of a microprocessor system & functions of its various blocks; Architecture of a Microprocessors; Memories and I/O Interfacing, Brief idea of M/C assembly languages, Machines & Mnemonic codes; Instruction format and Addressing Mode; concept of Instruction set; programming exercises in assembly language; concept of interrupt Data transfer

techniques- sync data transfer, interrupt driven data transfer , DMA, serial output data, serial input data.

8. **Computer:**

Computer and its working, types of computers, familiarisation with DOS and Windows, concept of file, directory, folder, number system. 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 Organisation. I/O system organisation. Microprocessors - Microprocessors Architecture, instruction set and simple Assembly level programming. Microprocessors based system design; typical examples. Personal computers and their typical uses. Data communication principles, types and working principles of modems. Network principles, OSI model, functions of data link layer and network layer, networking components; Communication protocol- X.25, TCP/IP.

9. **Database Management System:**

Basic concepts, entity relationship model, relational model, DBMS based on relational model.

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