



BHARAT SANCHAR NIGAM LIMITED

(A Govt. of India Enterprise)

O/o the CGM , Odisha Telecom Circle, Bhubaneswar – 751001.

Notification No. RE/10-3/2012

Recruitment for the post of Telecom Technical Assistants (TTA) - 2012 in Odisha Telecom Circle.

1. **Vacancy :-** Outside
2. Applications are invited from the bonafide Indian citizens for the post of Telecom Technical Assistant of Odisha Telecom Circle.
3. **Scale of Pay –** Rs 13600- 25420- with usual allowances as admissible.
4. **Details of vacancies-** Bharat Sanchar Nigam Limited ,Odisha Telecom Circle will fill up 34 Nos. TTAs (subject to variation)

Sl No	Name of the SSA	VACANCIES				
		OC	OBC	SC	ST	Total
1	BALASORE	1	1	0	1	3
2	BARIPADA	1	0	1	0	2
3	BERHAMPUR	1	0	1	0	2
4	BHAWANIPATNA	0	0	1	0	1
5	BHUBANESWAR	3	1	1	1	6
6	BOLANGIR	1	1	0	1	3
7	CUTTACK	2	1	1	2	6
8	DHENKANAL & KEONJHAR	1	1	1	0	3
9	KORAPUT	2	0	1	0	3
10	PHULBANI	1	0	0	0	1
11	ROURKELA	1	1	0	1	3
12	SAMBALPUR	0	0	0	1	1
Total -						34

5. Reservation for SC/ST/OBC/PH/Ex-Serviceman :-

- a) Reservation as per Central Govt. guidelines will be applicable for SC/ST/OBC/Physically Handicapped [PH]
- b) In respect of Physically Handicapped persons , candidates with following physical disability will be permitted.
 - i. **Locomotive Impairment:-** OL (One leg affected) or
BL (Both legs affected but not arms)
 - ii. **Hearing Impairment :-** Partially Deaf

(The minimum degree of disability is 40% in order for a person to be eligible for any concession / benefits)

c) 3% reservation for PH persons shall be as per provision laid in DOT letter No-1-8/2001-AD(SNG) dtd 18-10-2001 & 21-04-2003

d) **Ex-servicemen** are eligible for relaxation in age limit as prescribed by the Central Govt and normal rules on reservation shall be applicable in their case.

6. Examination Fee and application form :-

a) An examination fee of Rs.500/- is payable in the form of Indian Postal Order/Bank Draft along with the application drawn in favour of the **Accounts Officer (A & P), BSNL ,O/o the CGMT , Odisha , Bhubaneswar-1 , payable at Bhubaneswar .** Fees once paid shall **NOT** be refunded under any circumstances nor can it be held in reserve for any other examination or selection.

b) No fee for the applicants belonging to SC /ST category

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c) **Exemption from payment of examination fees is also available to the applicants of PH category.** The exemption will, however be available to only those handicapped persons who would be eligible for appointment to the post on the basis of the standards of medical fitness prescribed for the post and who enclose the Disability Certificate (Annexure-A) from a Government Hospital/ Medical Board in support of her/his claim for being handicapped with the Application form.

The specimen of the application form is included in this advertisement . Neatly typed (only on one side of paper) copy in A4 size (30cm x 20cm) may be used for making application. The completed application form should be sent by Registered post to the **Dy .General Manager (HR&A), BSNL, O/o the CGMT, Odisha Circle,Bhubaneswar-1.**The envelop containing the application form should be marked with “ **APPLICATION FOR THE POST OF TELECOM TECHNICAL ASSISTANT EXAMINATION - 2012 in** SSA ” in bold letters on the top of the envelop. Application can also be delivered in person by dropping the same in the box placed in the Room No-113 (1st Floor) of Dy General Manager (HR&A) , O/o the CGMT ,BSNL ,Odisha Circle,Bhubaneswar-1

Original advertisement or photocopy of the format in the advertisement must not be used for applying and in case a candidate submits such an application, the same will not be entertained. The given application format must be separately typed.

7. Educational Qualification :-

The applicant must possess , as on the last date of receiving applications , the educational qualifications in any of the following disciplines from a recognised Institute / University.

- a) Three years Engineering Diploma in
 - i. Telecommunications Engineering
 - ii. Electronics Engineering
 - iii. Electrical Engineering
 - iv. Radio Engineering
 - v. Computer Engineering
 - vi. Instruments Technology
 - vii. Information Technology
- b) M.Sc(Electronics) from a recognised institution / University

- Note :**
- a) Only such qualification and streams as prescribed in the Recruitment Rules of TTA 2001 may be allowed . There is no equivalence provided.
 - b) Candidates possessing higher qualification in the eligible stream are allowed to appear in the examination but their results will be declared on provisional basis and subject to the outcome of the Court case.
 - c) Candidates possessing Three year Diploma certificates are eligible to appear in the Exam irrespective of percentage of marks obtained .
 - d) In case a candidate is possessing requisite educational qualification, irrespective of having entered the course in the 2nd year through lateral entry level after 10+2 , he/she will be eligible to appear in the exam.

8.Age Limit :-

- a) The applicant should be between 18 to 27 years of age as on **13.05.2013.**
- b) However, this age is relaxable for following categories of applications
 - i) For Scheduled Caste and Scheduled Tribes up to 5 years
 - ii) For OBC candidates up to 3 years
 - iii) For PH candidates up to 10 years(15 years for SC/ST and 13 years for OBC)
 - iv) For departmental candidates
 - Up to 40 years in respect of General Candidates
 - Up to 45 years in respect of SC/ST candidates in accordance with the instructions or orders issued by the Central Govt.

- Up to 43 years in respect of OBC candidates
- v) For Residents of J&K – relaxation shall be in accordance with DOP&T O.M No- 15012/7/1991-Estt. (D) dtd 06-12-2005 pertaining to ‘Residents of State of Jammu and Kashmir (relaxation of Upper Age Limit for Recruitment to Central Civil Services and Posts) Rules 1997’
- c) The crucial date for calculating the age limit shall be the closing date of receipt of applications.

9.For detailed Syllabus :- log on www.orissa.bsnl.co.in

10. Minimum Qualifying Standards & Method of Selection :- BSNL shall fix the minimum qualifying marks for OC/OBC/SC/ST/PH candidates for each section as well as in the aggregate. Candidates obtaining less than minimum qualifying marks in any of the section or in the aggregate shall not be considered for inclusion in the merit-list. The merit-list will be drawn up on the basis of candidates’ performance in the exam and the number of vacancies. The appearance of the name in the merit-list does not confer any right to the candidate for employment. The successful candidates will be invited to produce their certificates/documents for verification and then a formal appointment letter will be issued to those successful candidates who fulfil all the eligibility conditions and other formalities for undergoing Induction training . Final Appointment and posting order will be issued to the successful candidate after completion of prescribed course of Induction Training and observing all departmental formalities.

11.Schedule of Examination :-

Day and Date	Paper & Subject (Multiple choice objective type)	Full Marks	Time
30.06.2013 (Sunday)	Part-I General ability (English and General Knowledge)	20	10.00 hrs to 13.00 hrs
	Part-II (Basic Engineering)	90	
	Part-III (Specialisation)	90	

12. Closing Date:- Application form complete in every respect must reach on or before **18.05.2013**.

13. Rejection :- Applications received after the closing date **OR** not accompanied by the requisite amount of Bank draft IPO (wherever applicable) for the prescribed examination fee **OR** not accompanied by attested copies of required certificates **OR** if the application is incomplete in any respect shall be summarily rejected and no communication in respect of the rejected application forms shall be entertained. Fees paid shall **NOT** be refunded. **BSNL shall not be responsible for any postal delay.** The applicants would be admitted to the examination on the basis of the information furnished by them in their application form. They are therefore advised to ensure that they fulfil all eligibility conditions before applying. In case it is found at a later stage that the information furnished by an applicant does not fulfil 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 fulfilment of all eligibility conditions.

14. Registration with Employment Exchange :- Registration with Employment Exchange is not mandatory. However, it would be preferable if the applicant has registered his/her name in the employment exchange in the territorial jurisdiction of the SSA for which she/he applies.

15. Training and Bond:- Selected candidate will undergo the prescribed training as per the training plan laid down by BSNL. During the period of training, a stipend will be paid to the candidate as per the BSNL rule in force. The selected candidate should execute a bond for a period of 5 (five) years to serve in BSNL in the pro-forma as may be specified by BSNL and a sum of Rs5000/- (Rupees Five thousand) only in the form of Demand Draft has to be deposited by the trainee as interest free security for due fulfilment of the conditions of the agreement.

16. Disqualification:- No person (a) who has entered 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 appointment , provided that the Central Govt. may if satisfied that such marriage is permissible under the personal law applicable to such persons and the other party to the marriage and that there are other grounds for so doing exempt any person from the operation of the rule.

17. Probation:- The candidate so appointed shall remain on probation for a period of 2(Two) years .

18. Jurisdiction:- The candidate shall if required will be liable to serve in the Territorial Army / Signal Unit for a period specified in the Territorial Army Act ,1948 (56 Of 1948) and the rules made there under.

19. Already employed in Govt. Service :- Candidates already working under Central Govt / State Govt./Public Sector Undertaking (PSU) should give details and the application must be forwarded by the present employer.

20. Candidates are advised to apply for the post under one SSA only and the candidate will be considered for the vacancies of that SSA only.

21. The applicants belonging to SC/ST categories will be entitled to TA as per provisions of Ministry of Finance (Dept. of Expenditure) OM No. 19014/3/77-E.IV(B) dtd 17-02-78 on production of original Caste Certificate along with a photo copy and original railway ticket or bus ticket before claiming reimbursement of travelling expenses (restricted to 2nd class passenger train or public bus minus fair for the 1st 30 kms from both sides) for the purpose.

22. Pre-recruitment training for SC/ST/Minority candidates:- Candidates belonging to the SC/ST/Minority communities shall be imparted a pre-recruitment training by BSNL well before conducting the Examination scheduled for 30.06.2013. For details log on to the BSNL website www.orissa.bsnl.co.in at regular intervals.

23. Enclosures to be attached with the application form:- i) Two passport size photographs without attestation to be pasted at the appropriate box in the application form ii) Disability Certificate (as in Annexure-I) in case of PH candidate iii) Bank Draft for Rs.500/- drawn in favour of AO(A&P),O/o the CGMT,BSNL,Odisha Circle,Bhubaneswar-1 iv) Two self-addressed unstamped envelopes

NOTE : 1. Candidates in their interest are advised to refer to the BSNL website - www.orissa.bsnl.co.in from time to time for any further instruction/information.

2. The vacancies of the SSAs are not final and likely to be changed. Candidates are advised to check the website regularly for ascertaining the final vacancy position in respect of each SSA.

3. For any inquiry the applicant may contact on telephone number **0674- 2390968/2396627** during office hours on working day.

4. The application form of unsuccessful candidates and also that of ineligible candidates shall be retained for a period of three months from the date of declaration of the result.

Sd/-
CHIEF GENERAL MANAGER , BSNL .
ODISHA TELECOM CIRCLE,
BHUBANESWAR- 751001

13. Educational Qualification (Diploma in Engg. & above)

Name of 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)

Name	:							
Father's/Husband's Name	:							
Address	:	<table border="1"><tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr></table>						

Please affix one recent passport size Photograph without attestation

15. Declaration to be given by OBC candidate only, eligible to avail reservation applicable to OBC
Ison/daughter of Sri
.....resident of
village/town/city.....District.....
.....State hereby declare that I belong to thecommunity
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), dated 8.9.1993. It is also declared that I do not belong to persons/sections
(Creamy Layer) mentioned in column 3 of the Schedule to the above referred Office Memorandum
dated 8.9.1993 and amended vide OM No. 36033/3/2004-Estt.(Res.) Dated 14.10.2008.

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 cancelled 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 prior to my appointment will also rank en-block senior to me.

Place:

Date:

(Signature of the Applicant)

NAME & ADDRESS OF THE INSTITUTE/HOSPITAL

Certificate No.....

Date.....

DISABILITY CERTIFICATE

Recent Photograph of the candidate showing the disability duly attested by the Chairperson of the Medical Board.
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This is certified that Sri/Smt/Kum.....
son/wife/daughter of Sri..... age.....sex.....
identification marks(s) is suffering from permanent disability of following category:

A. Locomotors or cerebral palsy :

- (i) BL – Both legs affected but not arms.
- (ii) OL – One leg affected (right or left)
 - (a) Impaired reach
 - (b) Weakness of grip
 - (c) Ataxic
- (iii) BH - Stiff back and hips (Cannot sit or stoop)
- (iv) MW – Muscular weakness and limited physical endurance.

B. Blindness or Low Vision:

- (i) B : Blind
- (ii) PB: Partially Blind

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 likely to improve. Re-assessment of this case is not recommended/ is recommended after a period of _____ year's _____ months*.

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

4. Sr./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. _____) (Dr. _____) (Dr. _____)

Member
Medical Board

Member
Medical Board

Chairperson
Medical Board

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

***Strike out which is not applicable.**

Scheme & Syllabus for TTA Direct Recruitment Examination

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 type paper of 3 hrs as per details given below :-

Paper	Subject	Marks	Time Allowed
Part I	General Ability Test	20	3 hrs
Part II	Basic Engineering	90	
Part III	Specialisation	90	

Note :- 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 exercises such as provision of antonyms and synonyms , fill in the blanks and multiple choice exercises etc. This shall also include questions on current events , general knowledge and such matters of everyday observation and experience as may be expected of an educated person .

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 Dimensions ; Waves, Acoustics , Ultrasonics; Light; Laser and its applications ; 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 , Kirchoff's Voltage, Current Laws and their applications in simple DC circuits ; Basic Magnetism ; Electro- magnetism ; Electromagnetic Induction ; Concept of Alternating Voltage and Current ; Cells and Batteries ; Voltage and Current sources ; Thevinin's Theorem , Norton's theorem and their applications .
4. Electronic Devices and circuits ; Classification of materials into conductor , Semiconductor , Insulator etc, Electrical properties , Magnetic material , various types of Relays, Switches and Connectors . Conventional representation of electric and electronic circuit elements. Active and Passive Components ; Semiconductor Physics ; Semiconductor Diode ; Bipolar transistor and their circuits ; transistor biasing and stabilisation of operating point ; Single stage transistor amplifier ; Field effect transistor , Mosfet Circuit application .

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Multistage transistor amplifier ; transistor audio-power amplifiers ; feedback in amplifier ; Sinusoidal Oscillators ; tuned Voltage amplifier ; Opto Electronic devices and their applications ; operational amplifier ; Wave shaping and switching circuits .

Block diagram of I.C timer (such as 555) and its working ; Multivibrator circuits; Time base circuits; Thyristors and UJT ; Regulated power supply.

5. Digital techniques:- Applications and advantages of digital systems ; number system (binary and hexadecimal) ; logic Gates ; Logic Simplification ; Codes and Parity ; Arithmetic Circuits ; Decoders , Display Devices and Associated Circuits ; Multiplexers and Demultiplexers ; Latches and Flip Flops ; Counters Shift Register ; Memories ; A/D and D/A Converters .

Part-III

Specialisation - 90 marks

Detailed syllabus for each section is as under :-

1.Electrical

Three phase vs Single phase supply , Star Delta Connections Relation between phase and line voltage , power factor and their measurements , Construction and principles of working of various types of electrical measuring instruments all types of motors and generators – AC & DC, transformers , starters , rectifiers , inverters , battery charges, batteries , servo and stepper motors , contactors control circuits, switchgears, relays, protection devices and schemes, substations , protective relaying , circuit breaker , generator protection , transformer protection , feeder and lightning protection , feeder and busbar protection lightning arrestor earthing, voltage stabilizer & regulators , power control devices and circuits , phase controlled rectifiers , inverters , choppers dual converters cycloconverters; power electronics application in control of drivers , refrigeration and airconditioning.

2.Communication

Modulation and demodulation – Principles and operation of various types of AM,FM and PM modulators / demodulators; Pulse modulation- TDM,PAM,PPM,PWM, Multiplexing ,Principles and application of PCM.

Introduction of basic block diagrams of digital and data communication systems ; Coding error detection and correction techniques ; Digital Modulations Techniques-ASK,ICW,FSK,PSK ; Characteristics /working of data transmission circuits ; UART,USART;Modems; Protocols and their functions , brief idea of ISDN interfaces ,local area network; Carrier Telephony – Features of carrier telephone system.

Microwave Engineering ; Microwaves devices ; waveguides;Microwave Components ; Microwave antennas ; Microwave Communication Systems- block diagram and working principles of microwave communication link.

3.Networks, 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 ;Principle of impedance matching bandwidth consideration of a transmission line .

Contd....P/3

4.Instruments and Measurements

Specifications of instruments – accuracy , precision , sensitivity, resolution range,,Errors in measurement and loading effect ; Principles of voltage , current and resistance measurements ;Transducers , measurement of displacement and strain , force and torque measurement devices ,pressure measuring devices , flow measuring devices ,power control devices and 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 Systems

Basic element of control system, open and closed loop system .concepts of feedback ,,Block diagram of control system , Time lag, hysteresis , linearity concepts , Self-regulating and nonself-regulating control systems ; Transfer function of simple control components ,single feedback configuration .

Time response of systems –

Stability Analysis – Characteristics Equation , Routh's table, Nyquist criterion , relative Stability, Phase margin and gain margin.

Routh Hurwitz criterion ,root locus technique ,Bode plot,Polar plot,gain margin and phase margin.

6.Microprocessors

Typical organization of a microcomputer system and function of its various blocks ; Architecture of a microprocessor ; Memories and I/O interfacing ; Brief idea of M/C and assembly languages, Machines and 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 ,async data transfer , interrupt driven data transfer,DMA , Serial output data ,serial input data.

7.Computers

Computer and its working , types of computers, familiarization with DOS and Windows – Concept of file, directory ,folder, 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 Organisation , I/O system organization , Microprocessors – microprocessor architecture, Instruction set and simple assembly level programming, microprocessor 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 protocols – X .25 , TCP / IP .

Data base management system - basic concepts, entity relationship model, relational model, DBMS based on relational model .