



(A GOVT. OF INDIA ENTERPRISE)

O/O THE CHIEF GENERAL MANAGER TELECOM, U.P. (E) CIRCLE,HAZRATGANJ, LUCKNOW-226001

Applications are invited from eligible Indian citizens for filling up **73** posts of “Telecom Technical Assistant “(TTA) for different SSAs of U.P. (East) Telecom Circle in the IDA pay scale of **Rs. 7,100-200-10,100/-**. The posts will be filled up through a competitive examination scheduled to be held on **11-01-2009**.

**(1) 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 recognized Institute/ University.

- (a) Three Years Engineering Diploma in Telecommunication Engineering/ Electronics Engineering/ Electrical Engineering/ Radio Engineering/ Computer Engineering/ Instruments Technology/Information Technology.
- (b) MSc (Electronics) from a recognized Institution/ University.

Note (i) Candidates possessing higher qualification in eligible streams are allowed to appear in the examination.

- (ii) Candidates possessing desired qualification in only the above mentioned streams, will be eligible to appear in the examination. There is no equivalence provided.

**(2) AGE LIMIT:-**

- (a) The applicant should be between 18 to 27 years of age as on the last date of receiving applications.
- (b) However, this age is relaxable for following categories of applicants.
  - (i) For Scheduled Castes & 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 Government.
    - 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 Service & Posts) Rules 1997”.

(VI) EX- serviceman, service rendered in Army, Navy and Air Force plus three years.

**(3) 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 marriage with any person, shall be eligible for appointment to the said post.

**(4) VACANCIES:-**

Number of vacancies to be filled in various SSAs (the recruitment units) of UP (East) Telecom Circle are as under. The candidates will have option to choose any one SSA and needs to mention in the application form against the name of recruitment unit.

Sl.No.	Name of SSA	OC	OBC	SC	ST	PH	Ex. SM (OC)	Total
1	Allahabad	4	3	2	-	-	-	9
2	Azamgarh	-	-	1	-	-	-	1
3	Banda	2	-	-	-	-	-	2
4	Basti	1	-	-	-	-	-	1
5	Etawah	-	1	-	-	-	-	1
6	Faizabad	1	-	-	-	-	-	1
7	Farrukhabad	2	-	-	-	-	-	2
8	Ghazipur	1	-	-	-	-	-	1
9	Gonda	1	-	-	-	-	-	1
10	Gorakhpur	4	-	1	-	-	-	5
11	Hardoi	1	-	-	-	-	-	1
12	Jaunpur	1	-	-	-	-	-	1
13	Jhansi	1	-	1	-	-	-	2
14	Kanpur	5	4	3	-	-	1	13
15	Lakhimpur	-	-	1	-	-	-	1
16	Lucknow	6	4	4	-	-	1	15
17	Mainpuri	1	-	-	-	-	-	1
18	Mau	1	-	-	-	-	-	1
19	Mirzapur	-	-	1	-	-	-	1
20	Orai	1	-	-	-	-	-	1
21	Raibareli	-	-	1	-	-	-	1
22	Sahjahanpur	1	-	-	-	-	-	1
23	Varanasi	7	-	1	-	1	1	10
Total		41	12	16	-	1	3	73

**TTA is a SSA cadre and the candidates will be selected against the vacancies of that particular SSA for which they have applied, and he will be allowed to appear for examination against the vacancy of that SSA only.**

**(5) RESERVATION FOR SC/ST/OBC/PH/EX-SERVICEMEN :**

- (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% for a person to be eligible for any concession/benefit under PH Quota. Applicants having impairment other than specified above, need not apply)
- (c) 3% of vacancy (SSA wise) [1.5% for locomotive and 1.5% for hearing impairment] will be reserved for PH persons.

**(6) RESIDENCE & REGISTRATION WITH EMPLOYMENT EXCHANGE IN SSA:**

There is no restriction of residence or essential condition of registration with the employment exchange in the particular SSA in which the applicant may apply. It would be preferable if the candidate has registration in the Employment Exchange of the SSA concerned in which the applicant applies.

**(7) SCHEME, QUESTION PAPER & SYLLABUS OF TTAS DIRECT RECRUITMENT EXAM:**

(a) There shall be only one Paper of multiple choice objective type of three hours duration with the following details:-

	<b>Part</b>	<b>Marks</b>	<b>Duration</b>	<b>Day &amp; Date</b>	<b>Timing</b>
Part-I	General Ability Test	20	3 hours	Sunday 11-01-2009	10AM To 01PM
Part-II	Basic Engineering	90			
Part-III	Specialization	90			

(b) 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 subject will approximately be that of Diploma level of an Indian Polytechnic. In the Specialization Part-III, a candidate has to attempt a common set of questions from the consolidated syllabus prescribed under Specialization Part -III.

(c) The candidate is required to obtain minimum qualifying marks in the paper and also in each of these parts as may be prescribed by the BSNL.

**(8) EXAMINATION FEE:-**

(a) A fee of Rs.500/-only is payable in form of Account Payee Bank Draft / I.P.O.drawn in favour of “Sr. Accounts Officer (Cash) O/o C.G.M.T. BSNL, U.P.(E) Circle” payable at Lucknow.

(b) No fee for the applicants of SC & ST categories.

(c) Exemption from payment of examination fees is also available to the applicants of PH category. This exemption will, however be available to only those handicapped persons who would otherwise be eligible for appointment to the post on the basis of the standards of medical fitness prescribed for that post who enclose with the application form, necessary certificate from a Government Hospital/Medical Board in support of his/her claim for being handicapped.

**(9) SELECTION:-** Selection will be through a competitive examination followed by medical test subject to successful completion of training, eligibility condition /conditions as prescribed.

**(10) BOND & TRAINING :-**

All candidates provisionally selected against the vacancies for Direct Recruitment shall execute a Bond for a period of two years from the date of appointment as Telecom Technical Assistant in the proforma as may be specified by BSNL.

The candidates selected through this examination will be required to successfully undergo prescribed training as per the training plan laid down by BSNL before their appointment.

**(11) SERVICE LIABILITY:-**

Normally within the territorial jurisdiction of SSA concerned but transferable any where in India in emergent circumstances in the interest of service.

**(12) CONCESSION FOR SC/ST CANDIDATES:**

**(a) Travelling Allowance to SC/ST candidates:** The applicants belonging to SC/ST categories will be entitled to T.A. as per provisions of Ministry of Finance (Deptt. Of Expenditure) O.M. No. 19014/3/77-E. IV (B) dtd 17-02-1978.

**(b) Pre-recruitment training for SC/ST candidates:** BSNL will be organising pre-recruitment training free of cost for eligible SC/ST candidates at Lucknow, for which the candidate will have to indicate their willingness in the application form at the appropriate place. The candidates will have to arrange at their own cost for their accommodation/lodging and boarding. No travelling expenses, halting allowance etc. will be paid by BSNL. The period of training, timings & its venue will be communicated separately.

**(13) APPLICATION FORM:-**

Specimen of Application Form is included in this advertisement. Good quality A4 size (30cm x 20cm) paper may be used for making application. Application should be neatly typed in double space. Original format in advertisement or its photocopy should not be used for applying.

**(14) CLOSING DATE FOR RECEIPT OF APPLICATION FORM:-**

Application form duly filled in and completed in every respect should be sent to **Recruitment Section, O/o Chief General Manager Telecom BSNL, UP (East) Circle, Hazratganj, Lucknow –226001**, so as to reach on or before 12-11- 2008.

“APPLICATION FOR TTA-2008 Exam. .... SSA” should be written in bold letters on the top of envelop containing Application. Application received after closing date and incomplete in any respect shall be summarily rejected and no communication in this regard shall be entertained. BSNL will not be responsible for any postal delay.

This Advertisement is also available on BSNL Website [www.upe.bsnl.co.in](http://www.upe.bsnl.co.in)

**ENCLOSURES:-**

Please submit the following in order as given below:-

- (1) Bank Draft/ I.P.O. of Rs.500/- from non exempt categories.
- (2) Admit Card (duly filled)
- (3) Two self addressed envelops (23cm x 11cm)
- (4) Application form
- (5) Copies of certificates i.e proof of age, Educational qualification & Caste certificate etc, duly attested by a gazetted officer.  
(Necessary certificate from a Govt. Hospital/Medical Board in respect of Physically Handicapped applicants)
- (6) Three recent identical passport size photographs, out of which one photograph (duly attested by a gazetted officer) should be pasted on the application form, one photograph (unattested) should be pasted on admit card, one spare photograph to be attached with the application.

**ASSTT. GENERAL MANAGER (Rectt)**



9. Whether already employed in Central Government/ State Government /Public Sector Undertaking(PSU). If yes, give details.
10. Whether registered in the Employment Exchange of the SSA for which application is made If yes, give details.
11. Gender: [Male/Female] -----
12. (a) Nationality : -----  
(b) Whether by birth / by domicile : -----
13. Marital status: [Married/Unmarried] -----
14. Details of Educational / Technical qualifications  
[Give details of Engineering Diploma/Degree obtained. Attested copy to be enclosed]
- 14.1 Name of Engineering Diploma/Degree with discipline -----
- 14.2 Name of University/ Institute -----
- 14.3 Month and year of obtaining Engineering Diploma/Degree -----
15. Medium opted for answering question paper: English/ Hindi -----
16. Details of application fee particulars
- 16.1 Bank Draft/I.P.O. No. and Date : -----
- 16.2 Amount Rs. : -----
- 16.3 Issuing Bank /P.O. -----
- 16.4 Payable in favour of ----- at -----

I do hereby declare that all the statement 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.

Date :  
Place:

Signature of the applicant



## Detailed Syllabus of TTA Direct Recruitment Examination

### **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, Acoustics, 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, 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, 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 and electronic circuit elements. Active and passive components, Semi conductor Physics, Semi Conductor Diode, Bipolar Transistor and their circuits, Transistor Biasing, Stabilisation of operating point, Single stage transistor amplifier, field effect transistor, Mosfet circuits applications.  
Multistage Transistor Amplifier, Transistor Audio Power Amplifiers, Feedback in Amplifier, Sinusoidal Oscillators, Tuned Voltage Amplifiers, Opto Electronics Devices and their applications, Operational Amplifier, Wave shaping and switching circuits.  
Block diagram of I.C. timer (such as 555) and its working, Motivation circuits, Time base Circuits. Thyristory and U J T, Regulated power supply.
5. **Digital Techniques:-** Applications and advantages of digital systems, number system (binary and hexadecimal), Logic Gates, Logic simplifications, Codes and Parity, Arithmetic Circuits, Decoders, Display Devices and Associated Circuits, Multiplexers and De-Multiplexers, Latches 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 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 motor and generator- AC and DC transformers, starters, rectifiers, inverters, battery charges, batteries, servo and stepper motors, contactor control circuits, switch gear, relays, protection devices and schemes, substation protective relaying, circuit breaker, generator protection, transformer protection, feeder and lightning protection, feeder and bus bar protection, lightning arrestor, earthing, voltage stabilizer and 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 applications of PCM.  
Introduction of Basic block diagram of digital and data communication systems, coding error detection and correction techniques, Digital modulation techniques-ASK, ICW, FSK, PSK, Characteristics/  
Working of data transmission circuits, UART, USART, Modems, Protocols and their functions, brief idea of ISDN interfaces, local areas Network, Carrier Telephony-Features of carrier telephone system.

Microwave Engineering, Microwave Devices, Wave guides, 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, Principles of impedance matching, Bandwidth consideration of a transmission line.

4. Instruments and Measurements:- Specifications of instruments-accuracy, precision, sensitivity, resolution range, Errors in measurements and loading effect, Principle of Voltage, current and resistance measurements, Transducers, measurement of displacement and strain, force and torque measuring devices, pressure measuring devices, flow measuring devices, power control devices and circuits. Types of AC millivoltmeters- 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.

Time response of systems.

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

Routh Hurwitz criterion, Root Locus techniques, Bode plot, Power plot, gain margin and phase margin.

6. Microprocessors:- Typical organization of a microcomputer system and function of its various blocks, Architecture of a Microprocessors, Memories and I/O Interfacing, Brief idea of M/C and assembly languages, Machines and Mnemonic codes, Instructions 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.

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 organization. I/O system organization.

Microprocessors-microprocessor 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 protocols –X 25, TCP/IP.

Database Management System- Basic concepts, entity relationship model, relational model, DBMS based on relational model.

-----