# BHARAT SANCHAR NIGAM LIMITED (A GOVT. OF INDIA ENTERPRISE) OFFICE OF THE C.G.M.T. AMBALA

### **RECRUITMENT OF TELECOM TECHNICAL ASSISTANT (TTA) for Haryana Telecom Circle**

Applications are invited from the eligible candidates for recruitment of **156** number of Telecom Technical Assistants by Haryana Telecom Circle for its various 09(Nine) Secondary Switching Areas (SSAs) as per details given below:-

			Cate	egory wis	e Vacanci	ies	Address where application is
Name of SSA	Total Vacancies	ос	SC	OBC		Physical ndicapped	to be submitted
					Loco	Hearing	
AMBALA	46	25	09	11	Nil	01	AGM(Admn/HR)O/o GMTD Ambala
KARNAL	17	12	01	04	Nil	Nil	AGM(Admn/HR)O/oSr.GMTD Karnal
HISSAR	30	19	06	05	Nil	Nil	AGM(Admn/HR) O/o Sr.GMTD Hissar
ROHTAK	20	11	04	05	Nil	Nil	AGM(Admn/HR) O/o GMTD Rohtak
FARIDABAD	05	04	Nil	01	Nil	Nil	AGM(Admn/HR) O/o Sr.GMTD Faridabad
JIND	06	04	01	Nil	01	Nil	AGM(Admn/HR) O/o GMTD Jind
REWARI	09	04	02	03	Nil	Nil	AGM(Admn/HR) O/o GMTD Rewari
GURGAON	12	08	Nil	04	Nil	Nil	AGM(Admn/HR) O/o Sr.GMTD Gurgaon
SONEPAT	11	06	02	02	01	Nil	AGM(Admn/HR) O/o GMTD Sonepat
Total	156	93	25	35	02	01	

#### Note:-

- (1) 10% of the total vacancies will be reserved for Ex-servicemen. Candidates who have not been discharged prior to date of submission of application will not be treated as Ex-Serviceman and they should not apply under this category.
- (2) The number of vacancies is subject to change / revision.
- (3) There is no reservation for ST category in Haryana as per Central Government instructions.

## **IDA Scale of Pay:-**

Telecom Technical Assistant shall be appointed in the IDA pay scale of Rs.13600-25420 with annual increment @ 3% of basic pay + other allowances admissible as per Company rules.

**Jurisdiction:** Normally selected candidates will be posted at the same SSA but under special circumstances they will be posted anywhere in Telecom Circle and anywhere in India under Territorial /Army Act 1948.

## Age limit:-

- a) The applicant should be between 18 to 27 year of age as on last date of submission of application.
- b) However, this age is relaxable for following categories of applications:
- (i) For Schedule castes upto 5 years.
- (ii) For OBC candidates upto 3 years.
- (iii) For PH candidates upto 10years(15 years for SC 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 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) dated 06-12-2005 pertaining to "Residents of State of Jammu and Kashmir(Relaxation of Upper Age limit for Recruitment to Central Civil Services & Posts) Rules 1997".

All Central / State Government /PSU Employees should send their applications through proper channel. Age relaxation for Ex-serviceman will be applicable as per Central Govt. Rules.

(The crucial date for determining the age limit shall be the closing date of applications (i.e ) **13.05.2013**.

**Educational Qualification**: - The Applicant must possess, as on the last date of Application, the educational qualifications in any of the following disciplines from a recognized Institute / University:

- (a) Three Years Engineering Diploma in :
  - i) Telecommunications Engineering
  - ii) Electronics Engineering
  - iii) Electrical Engineering
  - iv) Radio Engineering
  - v) Computer Engineering
  - vi) Instrumentation/Instrument Technology
  - vii) Information Technology
  - (b) M.Sc(Electronics) from a recognized institution / University.

# Note:-

- (a) Only such qualification and streams as prescribed above is allowed. There is no equivalence provided.
- (b) Candidates possessing higher qualification in the eligible stream are allowed to appear in the examination.
- (c) The candidate must have completed the requisite qualification by closing date of application i.e. their final results must have been declared before closing date of application and he/she should submit diploma / degree / provisional diploma / degree showing that he/she has completed the requisite qualification (alongwith total marks) by closing date of application. Appearing / those who have not passed all semester are not eligible. Results downloaded from Internet will not be accepted.

**Mode of Selection:** By means of competitive examination to be held in accordance with syllabus and Programme as under. Exam will be held at SSA level and Merit list will be drawn by respective SSA. There shall be only **One Paper** of multiple choice objective type(OMR based) of **three hours duration** with the following details:-

	PART	MARKS	Day & Time
Part-I	General Ability Test	20	
Part-II	Basic Engineering	90	30-06-2013 (Sunday)
Part-III	Specialization	90	10.00 AM to 01.00 PM

Note:-

(I) No bonus marks will be awarded for any higher qualifications or sports qualifications.

(II) Candidates will have option to appear in paper either in Hindi or English language.

**Medical Fitness:-** The selected candidates will be required to undergo a medical Test to ensure that they are physically fit and mentally alert to perform the duties expected of a TTA before sending them on TTA's training.

## Period of Probation:- 2 years

## **Concessions for SC Candidates:-**

(a) Traveling Allowance to SC candidate: The applicants belonging to SC categories will be entitled to T.A as per provisions of Central Government. Filled up TA Form in the format attached.

(b) Pre-recruitment training for SC Candidates:- Necessary Pre-Recruitment training for SC candidates will be conducted at CTTC Kurukshetra. Willing candidates may send their request alongwith application. Bond and Training:- All the candidates shall execute a bond in the form specified by the BSNL indicating their willingness to serve the BSNL for a period of Two years from the date of appointment as TTA. The selected candidates, before their appointment as TTA will have to successfully undergo prescribed training as per training plan laid down and amended by the BSNL from time to time. The appointment and posting will be subject to successful completion of training. During training period, the direct recruited TTAs will be entitled to a stipend of Rs.4970/- plus IDA admissible thereon and allowances as amended by the BSNL from time to time. The seniority of the candidates will be decided on their post training marks.

**Service Liability**: - Normally within the territorial jurisdiction of Secondary Switching Area (SSA) but transferable anywhere in Haryana. Candidates if required are also liable to serve in the Territorial Army / Signal Unit in accordance with rules made there under.

**Registration in Employment Exchange**:- 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, however, be preferable if the applicant has registration in the employment exchange of the SSA concerned in which the applicant applies.

Note:- Candidates need apply in only one SSA of his/her choice.

Fee:- The Examination fee(Non-refundable) of Rs.500/-(Rs. Five Hundred Only) is to be sent alongwith the application form in the shape of Crossed Indian Postal Order / Bank Draft drawn in the favour of Account Officer(Cash) O/o Sr.GMTD/GMTD (name of SSA) of the SSA concerned as the case may be. Payable at their Head Quarters and must be purchased / issued after the date of advertisement. Fee remitted by Money Orders, Cheques etc. will not be accepted. No examination fee is required to be paid in respect of SC /PH candidate.

Syllabus: The syllabus is available on website www.haryana.bsnl.co.in

**How to apply:-** Typed Application as per format duly filled in by the candidate in his/her own handwriting should be sent to the **AGM(Admn/HR) O/o Sr.GMTD /GMTD (name of SSA)** of the SSA concerned for which the candidate wishes to apply at the address given above, latest by **13-05-2013**. Three recent identical passport size photographs (duly attested by a Gazetted officer) out of which one is to be affixed in the space provided and another should be enclosed with the application. The envelope containing application should be super scribed in bold letters **"Application for Direct Recruitment to the cadre of Telecom Technical Assistants"** Two self addressed stamped envelopes size (23x11 cms) (affix a postal stamp of Rs.5/- each) should also be enclosed with the application.

Note :- 1) No application should be submitted to the office of Chief General Manager Telecom Haryana Circle, Ambala . All such applications are liable to be summarily rejected.

(2) Please enclose only photocopies of all the certificates and detailed mark-sheets duly attested by the candidates himself/ herself as well as by a Gazetted Officer in support of age, qualification, caste etc. SC / OBC certificate should be as required for central govt. service. In OBC certificate it should be categorically mentioned that the candidate does not belong to creamy layer. The name in the SC/OBC certificate should perfectly match with that in the matric certificate & other certificates of higher qualifications. The candidate should write his name in the same format as is mentioned in the matric & other certificates. If the same is found to be different, the application will be rejected. For example if SURNAME is not mentioned in the matric certificate, the same should not be in the SC/OBC certificate etc. & also should not be written in the application form. Married female candidates (wherever applicable) should submit SC/OBC certificate issued after their marriage according to the caste of their husband.

## APPLICATIONS RECEIVED AFTER THIS DATE WILL BE SUMMARILY REJECTED.

Rejection : Application received without the required fees, without copies of attested certificates, in complete applications, drafts wrongly addressed, not having qualification strictly according to as given above & application received after due date will be summarily rejected.

Abbreviations:- OC = Other Caste ,SC = Scheduled Caste, OBC = Other Backward Classes ,PH = Physical Handicapped, Ex-SM = EX-servicemen.

Chief General Manager Telecom Haryana Telecom Circle Ambala-133001



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# **BHARAT SANCHAR NIGAM LIMITED**

[ A Government of India Enterprise ]

APPLICATION FOR I EXAMINATION -2012	EXAMINATION FOI	R DIRE(	CT RECRU	JITMENT	r OF	TELE	сом.	TEO	CHNICAL	ASSIS	TANT	(TTA
Important Notes: ( (ii) All entries shou 1. Name of Recruitn	uld be made in cap	-		ailed ac	dverti	semer	nt car	efull	у.			
2. Name (in capita	al letters) (for S. No. 3	2 & 3 pleas	e keep one b	iox blank b	etween	first nan	ne, mid	dle nai	me & last na	ame)		]
3. Father's/Hu	usband's Name (in	capital	letters)									
4. Date of Birt		_	s on the o	-			. Wh	ethe	er claimi	ng age	e relaxa	atior
	<sup>YEAR</sup> re	•	f applicat <b>YY M</b>		5-2013 DD	}	Г	Write	e: Yes/No			
		Γ						vviice	2. TCS/NC			
Gender 8. [Male/Female]	Marital Status [Married/Unmarried]	9.		Nation	ality			10		CATEGC belong	s to	
			Country	By B	irth or	Domic	ile		SC/S	T/OBC/	OC/PWE	,
L												
11. Category (write Whether BSNL	e, as applicable) Whether undergor	e If	Physically	Disablec	(Atta	ch		Vheth	er	Wł	nether	
employee	apprentice training	, N	1edical Cer	tificate a	•			iovt.			ongs to	
(Yes/No). If yes, mention HRMS No.	in BSNL successfull (Yes/No)	y A	nnexure I)					mplov (es/N		/J8	viceme «K – Pl ecify	
		L( H	vhether DCOMOTIVI EARING npairment		ercenta isability	-						
12. Address for cor	rrespondence (in	capital	letters)									7
Name : Address:									passpor Photogr	rt aph	e recent size without	
City: State: e-mail address:		Pin Co	de :						attesta	tion		
Mobile No.	т	ele.No(v	vith STD C	code)								-

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

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

14.F	Permanent A	ddress (in capital le	etters)	Please affix one recent passport size Photograph
	Name	:		without attestation
	Father's/Hu	usband's Name:		
	Address	:		
	City	:		
	State	:	Pin Code:	

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

## 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(TTA) 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 but not appointed as TTA by BSNL so far. Similarly, candidates of TTA examination held prior to my appointment will also rank en-bloc senior to me.

Place: Date:

### **SCEHEME & 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 be approximately be that of Diploma level of Indian Polytechnic. There shall be **single** multiple choice objective type Paper of 3 hours duration as per details given below:-

Paper		<u>Marks</u>	Time allowed
Part-I	:General ability test	20	
Part-II	:Basic Engineering	90	3 hours
Part-III	:Specialization	90	

Note:- Minimum qualifying marks for different category of candidates will be as follows:-

- (a) Minimum qualifying marks in the paper will be 40% for the General Category(OC) and 33% for the candidates of SC/ST/OBC/PH categories. The Question paper shall comprise of these parts of 20,90 and 90 each, as prescribed in the scheme and Syllabus. There will be a single paper of 200 marks and each question shall carry one mark.
- (b) The minimum qualifying marks in each of the three parts of Question paper will be 30% for OC and 20% for candidates belonging to OBC/SC/ST categories i.e the minimum passing marks in each of the 3 parts in respect of OBC/SC/ST, it will be 6,27 and 27 respectively whereas in respect of OBC/SC/ST, it will be 4,18 and 18 respectively.
- (c) Further relaxation of 2% in marks will be given to the physically Handicapped candidates in each category viz OC-PH,OBC-PH,SC-PH and ST-PH.
- (d) There will be negative marking for each wrong one , 25% of mark of that question shall be deducted.

## 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 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 Diploma holder.

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

#### Detailed Syllabus is as under:

**1.** <u>Applied Mathematics</u>: Co-ordinate Geometry; Vector Algebras, Matrix and Determinant ; Differential calculus ; Integral calculus, Differential equation of second order; Fourier Series; Laplace Transform; Complex Number; Partial Differentiation.

**2.** <u>Applied Physics</u>: Measurement-Units and Dimensions; Waves, Acoustics, Ultrasonic; Light; Laser and its Applications; Atomic Structure and Energy Levels.

**3.** <u>Basic Electricity</u>: Electrostatics, coulomb's law, Electric field, Gauss's theorem, concept of potential difference; concept of capacitance and capacitors; Ohm 's law, power energy, Kirchoff's voltage and current laws and their applications in simple DC circuits; Basic Magnetism; Electro 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.** <u>Electronic Devices and Circuits</u>: 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 conductors Physics; Semi Conductor Diode; Bipolar Transistor & their circuits; Transistor Biasing & Stabilization of operating point; Single stage transistor amplifier; field effect transistor, Mosfet circuit applications.

Multistage Transistor Amplifier; Transistor Audio Power Amplifiers; Feedback in Amplifier; Sinusoidal Oscillators; tuned Voltage Amplifier; 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; Multivibrator circuits; Time base circuits; Thyristors and UJT; Regulated Power Supply.

**5.** <u>Digital Techniques</u>: 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 De-multiplexers; Latches and Flip Flops; Counters; Shift Register; Memories; A/D and D/A converters.

### PART-III: SPECIALIZATION-90 MARKS

#### Detailed Syllabus is as under:

- 1. <u>Electrical</u>: 3 phase 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, invertors, battery charges, batteries, servo and stepper motors, contactor control circuits, switch gear, relays, protection devices & schemes, substation, protection relaying, circuit 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, invertors, choppers, dual converters, cyclo converters; power electronics application in control of drivers, refrigeration & air conditioning.
- <u>Communication</u>: Modulation and demodulations-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 system; coding error detection and correction techniques; Digital Modulation Techniques-ASK,ICW,FSK,SK; 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; Microwave Devices; Waveguides; Microwave Components; Microwave antennas; Microwave Communication System-Block diagram & working principles of microwave communication link.

- **3.** <u>Network, Filters and Transmission Lines</u>: Two point network, Attenuator; Filters; Transmission Lines and their applications; characteristic impedance of line; concept of reflection and standing waves on transmission line; Transmission line equation; Principle of impedance matching; Bandwidth consideration of transmission line.
- 4. <u>Instruments and Measurements</u>: Specification of instruments-accuracy, precision, sensitivity, resolution range. Error in measurement and loading effect; Principles of voltage, current and resistance measurement; Transducers, measurement of displacement & strain, force & torque measuring devices, flow of measuring devices, power control devices & circuits. Types of AC milli voltmeters-Amplifier 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 specification of logic probes, signal analyzer and logic analyzer, signal generator, distortion factor meter, spectrum analyzer.

5. <u>Control Systems</u>: Basic elements of control system , open and closed loop system, concepts of feedback. Block diagram of control system, Time lag, hysterisis 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; Characteristics equation. Routh's table, Nyquist Criterion, Relative stability, phase margin and gain margin.

Routh Harwitz criterion; Root Locus technique, Bode plot, Power plot, gain margin and phase margin.

- 6. <u>Microprocessors</u>: Typical organization of microcomputer system and functions of its various blocks, Architecture of a Microprocessor; Memories and I/O Interfacing; Brief idea of M/C & assembly languages, Machines and Mnemonic codes; Instructions format and Addressing mode; concept 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. <u>Computer</u>: Computers and its working, types of computers, familiarization with DOS and window-concept of file, directory, folder, Number Systems; Data Communication. 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. Microprocessor-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 protocol-x.25, TCP/IP.

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

### 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.

This is certified that Shri/Smt/Kum......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. 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	)	(Dr	) (Dr	)
Member		Member		Chairperson
Medical Board		Medical Board		Medical Board

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

\*Strike out which is not applicable.

## **BHARAT SANCHAR NIGAM LIMITED**

[ A Government of India Enterprise ]

#### Office of Sr.GMTD/GMTD\_\_\_

Form for reimbursement of Travelling Allowance in respect of SC candidates for attending written test exam for the post of Telecom Technical Assistant (TTA)-2012 at \_\_\_\_\_\_Centre.

1.	Name of Applicant	:
2.	Roll Number	:
3.	Community	:
	(Attested photocopy of the certificate enclosed)	:
4.	Residential Address	:
	(As given in Application form)	
5.	Address from where journey has been performed	:
6.	Whether employed or not	:
7.	If employed, whether in Centre/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	То	Mode of Journey	Class of Travel Bus/Rail	Distance Travelled (one side)	Ticket number	Fare (In Rs.)

#### **CERTIFIED THAT**

- a) I am unemployed and as certificate of Unemployment issued by MP/MLA or a Gazetted Office of the place where I normally reside is enclosed.
- b) I have not claimed/will not claim T.A. for this journey from any other source.
- c) I have actually travelled by the shortest route and by the class/mode for which I have preferred the claim.
- d) 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 found fake or incorrect, necessary action as deemed fit may be taken by BSNL.

Dated:

**Signature of Applicant** 

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

# For use of BSNL

Verified by

(Signature Designated Officer of BSNL)

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

Signature of DDO