

BHARAT SANCHAR NIGAM LIMITED (A Government of India Enterprise) O/o CGMT., KARNATAKA TELECOM CIRCLE

Direct Recruitment in the cadre of Telecom Technical Assistants (TTAs) in BSNL

Recruitment Year: 2012

CLOSING DATE OF RECEIPT OF APPLICATION: 13.05.2013

DATE OF EXAMINATION : 30/06/2013. (SUNDAY)

Bharat Sanchar Nigam Ltd. [BSNL], KARNATAKA Telecom Circle has proposed to fill up about **141** (one forty one) number of vacancies (subject to variations, if any) for "**Telecom Technical Assistants**" (**TTAs**) through an open Competitive Examination, scheduled to be held on <u>**30th JUNE 2013 (SUNDAY)**</u> from **10.00 Hrs to 13.00 Hrs** in all 19 Secondary Switching Areas (SSAs) including non-recruiting units like Southern Telecom Region (STR), Southern Telecom Projects (STP), Quality Assurance (QA), etc., as per the prevailing Recruitment Rules, 2001 and amendments thereto, from time to time. The Vacancy details, SSA-wise (district-wise) are as per <u>Annexure-A</u> of this notification.

<u>1. Scale of Pay</u>: The Telecom Technical Assistant shall be appointed in the IDA pay scale of Rs.13600-25420, in addition to other allowances, as admissible as per company rules.

<u>2. Jurisdiction</u>: 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.

3. Eligibility:

3.1. <u>Nationality</u>: Only Indian Nationals would be eligible to apply.

3.2. Educational Qualifications:

As on the closing date of receipt of applications, an applicant must possess educational qualifications in any of the following disciplines from a recognized Institute/University:

- a) Three Years Engineering Diploma in
 - Telecommunications Engineering
 - Electronics Engineering
 - Electrical Engineering
 - Radio Engineering
 - Computer Engineering
 - Instruments Technology
 - Information Technology.
- b) M.Sc. (Electronics) from a recognized institution/University.

Note 1:

- I. No equivalence in the Educational qualification is provided.
- II. Candidates possessing higher qualification in the eligible stream are allowed to appear in the examination.

Note 2:

The appearance of the candidates in the examination will be purely on a provisional basis and failure to produce the certificate as to the above qualification at the time of scrutiny of documents will make the candidate ineligible to qualify in the examination. No extension of time in this regard or any request for relaxation in qualification would be entertained under any circumstances.

<u>4. Age</u>:

- (a) The applicant should be between 18 to 27 years of age as on closing date of receipt of applications from candidates.
- (b) However, this age is relaxable for following categories :
 - (i) For OBC candidates up to 3 years
 - (ii) For Scheduled Castes and Scheduled Tribes up to 5 years
 - (iii) For OC-PWD candidates up to 10 years,
 - (iv) For OBC-PWD candidates up to 13 years,
 - (v) For SC/ST-PWD candidates up to 15 years
- (c) For departmental candidates:
 - up to 40 years in respect of General (OC) 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
- (d) For Residents of J&K Relaxation shall be in accordance with DOP&T O.M.No. 15012/7/1991-Estt.(D) dtd. 6.12.2005 pertaining to "Residents of State of Jammu and Kashmir (Relaxation of Upper Age Limit for Recruitment to Central Civil Services & Posts) Rules 1997".
- (e) Ex-servicemen are eligible for relaxation in age as prescribed by the central government rules.

<u>5</u>. <u>PWD</u> : In case of PWD candidates, only such persons would be eligible for reservation in services/posts who suffer from not less than 40 percent of relevant disability. A person who wants to avail of benefit of reservation would have to submit a Disability Certificate issued by a competent authority in the format given in <u>Annexure-B.</u>

In respect of Persons with disabilities, candidates with following physical disability only will be permitted:

(i) For Hearing Impairment:

Physical Requirements.	Category of the Disabled suitable for the Job.
 (1) S-work performed by Sitting. (2) B-Work performed by Bending 	(1) PD – Partially deaf.

(ii) Locomotor disability:

Physical Requirements Categor	y of the Disabled suitable for the Job.
	Both Legs affected but not arms. One Leg affected (R or L).

<u>Note</u>: 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 extract 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 submission of application, pre-recruitment formalities and appointment. No other document relating to age like horoscopes, affidavit, birth extracts from Municipal Corporation, Service records and the like will be accepted.

6. Probation Period:

On appointment, candidate is required to serve a **minimum of 2 (TWO) years** in that particular SSA / non-recruiting (attached) units.

7. Bond & Training: Selected candidates will have to sign a two years bond for the amount as decided by BSNL in favour of BSNL. Candidates must undergo the prescribed training of 10 weeks or as per company rules. During the training period stipend is payable as per company rule. Appointment orders will be issued only after successful completion of Training, Medical fitness and on reporting as TTA.

8. Syllabus & Question Paper :

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

	Part	Marks
Part- I	General Ability Test	20
Part- II	Basic Engineering	90
Part- III	Specialization	90

(b) Total number of Questions in the paper would be 200 and each question shall carry one mark.

(c) 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.

9. Minimum qualifying standards:

- Qualifying marks in the paper will be 40% for the candidates of unreserved communities (OC-General) and 33% for the candidates of SC/ST/OBC category.
- (ii) The question paper shall comprise these parts of 20, 90 and 90 each.
- (iii) There will be a single paper of 200 marks and each question shall carry one mark.
- (iv) The minimum qualifying marks in each of the three parts of the 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 three parts in respect of OC will be 6, 27 and 27 respectively, whereas in respect of OBC/SC/ST, it will be 4, 18 and 18 respectively.
- (v) Further relaxation of 2% in marks will be given to the PWD candidates in each category viz. OC-PWD, OBC-PWD, SC-PWD and ST-PWD.
- (vi) There will be a negative marking for each wrong one, 25% of mark of that question shall be deducted.

The appearance of the name in the merit-list does not confer any right on the candidate for employment. An appointment letter will be issued to the candidate only after completion of all other pre-recruitment formalities and successful completion of TTA induction training.

No request for revaluation of answer books shall be entertained under any circumstances, as per BSNL rules.

<u>10.</u> Choice of Examination Centre: The SSAs as indicated in Annexure-A will function as examination centre.

11. Examination Fee:

- (b) The applicants of SC/ST/PWD communities will not be required to pay the fee.

Contd....5

12. Application form:

- (i) The specimen of the application form is included in this advertisement and the applicants are instructed to apply **ONLINE** and this registered application should be taken print, sign in the space provided for and submit to the concerned SSA along with <u>necessary documents as</u> <u>specified in this notification (as specified under 4 of Point no.20).</u>
- (iii) Original advertisement or photocopy of the format in the advertisement published must not be used for applying and in case a candidate submits such an application the same will be summarily be rejected.
- (iv) An applicant is allowed to appear for examination as against the vacancy of **ONE SSA** only.
- (v) Selection will be based on the merit scored in the said competitive examination in the concerned SSA, followed by medical test, prerecruitment formalities, etc., Posting Orders will be given subject to successful completion of Induction Training of TTA, as per Rules.

13. Closing date for receipt of Application Forms

- (i) Application forms complete in every respect along with necessary enclosures must reach on or before <u>13/05/2013 to the concerned</u> <u>SSA, where the applicant wishes to take up the exam.</u> Applications received after the closing date or incomplete in any respect shall be summarily rejected and no communication in respect of the rejected application forms shall be entertained.
- (ii) Any cutting or overwriting in any part of the application form will render it liable to be rejected. Candidates are, therefore, advised to take special care while filling the application form.
- (iii) 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 is false or 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. The decision of BSNL in this regard shall be final & binding.
- (iv) BSNL will NOT be responsible for postal delay or loss of application in transit.

14. Concession for SC/ST Candidates:

14.1 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) dated 17.02.1978. SC/ST candidates shall be eligible for Travelling Allowance by second class sleeper passenger train fare by the shortest route from the railway station nearest to their normal place of residence, or from which they actually performed the journey, whichever is nearer to the place of examination centre, and back to the same station provided the distance travelled by train each way exceeds 30 K.Ms.

The candidates are required to produce the following documents on the exam date, for claiming TA. The payment will be made by BSNL.

- (a) Filled up TA Forms in the format attached, as Annexure-C;
- (b) Unemployment certificate issued by M.P./M.L.A. or Gazetted Officer of the place where the candidate normally resides;

(c) Original Rail/Bus Ticket of the inward journey performed by the candidate.

<u>14.2</u>: <u>Pre recruitment Training:</u>

As per BSNL Corporate Office SCT Cell letter no.16/8/2006/SCT/257 Dtd.28/08/2006 pre recruitment training will be arranged for all the eligible SC/ST/OBC/Minority candidates in connection with preparation for the examination.

<u>15.</u> <u>Admit Cards</u>: ADMIT CARD (s) Will be issued to eligible candidates through concerned SSA (exam centre) where the application is submitted.

16. Disqualifications: 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 post of TTA.

Provided that BSNL 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.

<u>17</u>. No request for change of exam centre or for withdrawal of candidature will be entertained under any circumstances after he has submitted his application. Any dispute regarding the recruitment will be subject to the Courts/Tribunals having jurisdiction over the place of concerned Circle office of BSNL from where the candidate is appearing for the examination.

18. Guidelines on Waiting list:

- (i) The circle will maintain waiting list for each SSA.
- (ii) Waiting list will be furnished in the website along with detailed instructions, as per Company rules.
- iii) Appearance of candidate's name in the waiting list does not confer any right on the candidate for claiming appointment in the company.

iv) In the event of dropout/non-availability of successful candidates who have been sent offer letter for appointment as TTA, the waiting list will be operated to fill up only the unfilled notified vacancies arising out of dropouts of successful candidates strictly in the order of merit in the waiting list, while cancelling candidature of earlier successful candidates.

<u>19</u>. As per BSNL, Corporate Office Letter no.250-18/2008-Pers.III dated 04/09/2008, SCHEME AND SYLLABUS is enclosed, as Annexure-D.

20. IMPORTANT INSTRUCTIONS:

- 1. Candidates in their interest are advised to refer to the BSNL, Karnataka Circle website (www.karnataka.bsnl.co.in) from time to time for further instruction/ information.
- 2. For any enquiry, the applicant may contact concerned SSA during office hours as available in Annexure-A.
- 3. The application form of ineligible candidates and unsuccessful candidates shall be retained for a period of three months from the date of declaration of result.
- 4. **Enclosures (copies of certificates)** to be attached along with the application:
 - a) Standard form of Date of Birth proof like SSLC marks card, etc.,
 - b) Educational qualification for Diploma/BE/B.Tech/M.Sc, etc.,
 - c) Community Certificate (SC/ST/OBC/Minority). In case of OBC, applicant should enclose a prescribed format (specimen format enclosed at Annexure-E) as applicable for appointment in Government Sector.
 - d) PWD certificate, wherever applicable.
 - e) For Ex servicemen, Discharge summary certificate.
 - f) Two Identical pass port size photos to be pinned along with application, apart from one photo pasted in the space provided in the application form.
 - g) Demand Draft for Rs.500/- whoever applicable.
 - h) Two self addressed envelopes.
 - i) NOC from the Employer/ authorised Signatory, if applicant is already employed in any Government Sector in Central or State / PSU /BSNL.

Sd/-(U.C.KHANNUKAR), Deputy General Manager (R&E), O/o Chief General Manager Telecom, BSNL, Karnataka Circle, Bangalore-560 008. Ph.080-25563852, Fax.25570261

<u>Total Pages</u> : 19 Pages, including Annexures A, B, C, D and E.



BHARAT SANCHAR NIGAM LIMITED

(A Government of India Enterprise)

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Імғ (1) (11)	 TTA) IN BSNL, KARNATAKA TELECOM CIRCLE FOR THE RECRUITMENT YEAR 2012. IMPORTANT NOTES: (I) BEFORE FILLING THIS FORM, READ DETAILED ADVERTISEMENT CAREFULLY. (II) ALL ENTRIES SHOULD BE MADE IN CAPITAL LETTERS. 1. Name of recruitment unit: (SSA) 													Please affix one recent passport size Photograph without attestation																
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12. Category (write, as applicable)

Whether BSNL employee (Yes/No). If yes, mention HRMS No. & appcIn. should be send through proper channel along with NOC.	Whether registered under Employment Exchange of the respective SSA (Yes/No)	If Physically Handicapped (Attach Medical Certificate as in Annexure B)	Whether Govt. employee (Yes/No). If yes, attach NOC	Whether belongs to Ex- servicemen /J&K – Please specify
		whether LOCOMOTIVE Percentage or HEARING of disability Impairment (%ge)	-	

Signature of the applicant:	

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13. Address for correspondence (in capital letters)

14. Permanent Address :

Name Address City:		Name Father's/H Address	usband's	: Name : :
State: e-mail addre	lo. with STD:	City State	:	Pin Code:

15. Educational Qualification (Diploma in Engg & Above).

Name of Engg Diplo With Discipl		University/Institute	Month & Year of	As per the Advertisement	
Diploma / Degree	Discipline (Stream)	Oniversity/Institute	Passing	whether eligible (Yes/No)	

16. 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 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 enbloc senior to me.

Place:	
Date:	
Enclosures:	

(Signature of the Applicant)

Annexure-A

SSA-WISE VACANCIES IN DR TTA, RECT. YEAR 2012 IN KARNATAKA CIRCLE, EXAM ON 30/06/2013.

SL. NO.	NAME OF THE EXAM CENTRE (SSA)	ос	OBC	SC	ST	TOTAL	ADDRESS WHERE THE ON-LINE APPLICATION & ENCLOSURES TO BE SENT
1	BANGALORE	21	9	6	2	38	O/O PGM TELECOM, BSNL, TELEPHONE HOUSE RAJBHAVAN ROAD BANGALORE-560 001. Ph.080-22861717 080-22865072
2	BELGAUM	4	1	0	0	5	O/O GMTEELECOM, BSNL, TELEPHONE EXCHANGE COMPOUND, BELGALUM—590 001 PH:0831-2464500
3	BELLARY	3	1	0	0	4	O/o GMTD, BSNL, BSNL STATION ROAD. BELLARY-583101 PH:08392276185
4	BIDAR	2	0	0	0	2	O/O GM TELECOM, BSNL, RAGHAVENDRA ROAD NEAR RANGA MANDIRA BIDAR-585401 PH:08482-227900 08482-227099
5	BIJAPUR	5	1	1	0	7	,O/O GM TELECOM, BSNL, SANCHARA SURABHI M G ROAD, BIJAPUR-586 101 PH:08352-253700
6	CHICKMAGALORE	3	1	0	0	4	O/O GM TELECOM, BSNL, NEW TELEPHONE EXCHANGE BUILDING, BELT ROAD, CHIKMAGALUR-577 101 PH:08262-238900
7	DAVANGERE	5	1	1	0	7	O/O GM TELECOM, BSNL,BHAVAN DEVARAJURS LAYOUT "A" BLOCK, DAVANGERE-577 006 PH:08192-250105 08192-255806
8	GULBARGA	3	1	0	0	4	O/O GM TELECOM, BSNL NEAR HEAD POST OFFICE GULBARGA-585 101 PH:08472-266874 08472-266829
9	HASSAN	4	1	0	0	5	O/O GM TELECOM, BSNL BHAVAN, III FLOOR, B M ROAD, HASSAN-573 201 PH:08172-259227 08172-259218
10	HUBLI	5	2	1	0	8	O/O GM TELECOM, BSNL, SANCHAR SADAN, STATION ROAD, HUBLI-580020 PH:0836-2351799 0836-2351740

11	KOLAR	5	1	1	0	7	O/O GM TELECOM, BSNL, TELEPHONE EXCHANGE COMPOUND RAILWAY STATION ROAD, KOLAR-563 101 PH:08152-223122
12	KARWAR	З	0	0	0	3	O/o GM TELECOM.,BSNL BHAVAN KAJUBAG KARWAR 581 306. PH.08382-229412 08382-221225
13	MADIKERI (KODAGU)	3	1	0	0	4	O/O GM TELECOM, BSNL, PADMAVATHY COMPLEX. GOWLI STREET. MADIKERI-571201 PH:08272-228895
14	MANDYA	3	1	0	0	4	O/O GMTD TELECOM BSNL, TELEPHONE EXCHANGE BLDG., OPP TO KALAMANDIR, MANDYA-571401 PH:08232-220531
15	MANGALORE	9	4	2	1	16	O/O PGM TELECOM. BSNL, DKTD, TELECOM HOUSE ROAD, MANGALORE-575 001 PH:0824-2429008 0824-2443377
16	MYSORE	8	3	1	0	12	O/O GM TELECOM, BSNL, NO.69, TEMPLE ROAD, I CROSS, IV BLOCK, JAYALAKSHMI PURAM, MYSORE-570 012 PH:0821-2513378
17	RAICHUR	3	1	0	0	4	O/O GM TELECOM, BSNL, OPP. TO OPEC HOSPITAL, HYDERABAD ROAD, RAICHUR 584102 Ph.08532-238022
18	SHIMOGA	3	1	0	0	4	O/O GMTD TELECOM, BSNL BHAVAN, SAGAR ROAD, OPPOSITE TO APMC YARD SHIMOGA-577201 PH:08182-251469
19	TUMKUR	3	0	0	0	3	O/O GM TELECOM, BSNL BHAVAN, ASHOKA ROAD, TUMKUR-572 101 PH:0816-2278689
		тот	ΓAL	141	(One Hundred and Forty One only)		

Annexure-B

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	
son/	/ wife/ daughter of Shri	
age	Sex identification marks(s)	is suffering
from	n 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.

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(A Government of India Enterprise)

Office of Chief General Manager, Karnataka Telecom Circle, Bangalore-8.

Form for reimbursement of Travelling Allowance in respect of SC/ST candidates for attending Written Test Exam. for the post of TTA RY 2012 at ______ Centre.

- 1. Name of Applicant 2. **Roll Number** : 3. Whether SC / ST (Attested photocopy of the certificate enclosed): **Residential Address** 4. : (As given in Application Form) 5. Address from where journey has been performed :
- 6. Whether employed or not
- 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	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 a certificate of Unemployment issued by MP/MLA or a Gazetted Officer 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 false or incorrect, necessary action as deemed fit may be taken by BSNL.

Dated:

Signature of Applicant

<u>Note</u>: 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

Admissible Amount Rs._____

Signature of DDO

(Signature of Designated Officer of BSNL)

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<u>Annexure – 'D'</u>

SCHEME & SYLLABUS

FOR

TELECOM TECHNICAL ASSISTANTS (TTA)

(As per BSNL, Corporate Office Letter no.250-18/2008-Pers.III dated 04/09/2008 in DIRECT RECRUITMENT EXAMINATION of TTA)

The standard 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 Hours duration as per details given below:

	PAPER	MARKS	TIME ALLOWED
PART-I	GENERAL ABILITY TEST	20	
PART-II	BASIC ENGINEERING	90	3 Hours duration
PART-III	SPECIALIZATION	90	

<u>Note-1</u>: The candidate is required to obtain minimum qualifying marks in each of these parts as 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 every day observation and experiences as may be expected of Diploma holder.

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PART-II :- BASIC ENGINEERING :

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 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 & current; Cells and Batteries; Voltage and Current Sources; Thevenin's theorem, Norton's theorem and their applications.
4	ELECTRONICS DEVICES & 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 circuits elements. Active and passive components; semi conductor Physics; Semiconductor diode; Bipolar transistor & their circuits; Transistor Biasing Stabilization 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 UJT; Regulated Power Supply.
5	DIGITAL TECHNIQUES :	Applications and advantages of digital systems; number system (binary and hexadecimal); Logic Gates; Logic Simplication; 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 :

<u>90 MARKS</u>

Detailed Syllabus is as under :

1	ELECTRICAL :	3 Phases 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 motors, contactor control circuits, switchgear, relays, protection devices and 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, cyclo-converters; power electronics application in control of drivers, refrigeration & air-conditioning.
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 & working principal's of Microwave communication link.
3	NETWORK, FILTERS & TRANSMISSION LINES:	Two port network, Attenuators; Filters; Transmission Lines and their applications: Characteristic impedance of the line; concept of refection and standing waves on a transmission line; Transmission line equation; Principles of impedance matching; Bandwidth consideration of a transmission line.
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4	INSTRUMENTS & 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 SYSTEMS:	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 Characteristics 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 & 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.
7	COMPUTER:	Computer and its working, types of computers, familiarization with DOS & 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; communications protocolsa-X.25, TCP/IP. Database Management System – Basic concepts, entity relationship model,
		relational model, DBMS based on relational model.

Annexure-4

OBC CERTIFICATE FORMAT

FORM OF CERTIFICATE TO BE PRODUCED BY OTHER BACKWARD CLASSES APPLYING FOR APPOINTMENT TO POST UNDER THE GOVERNMENT OF INDIA This is to certify that Shri/Smt./Km.*son/daughter* of Shri in state belongs to community which is recognised as backward class under: 1 Resolution No. 12011 /68/93-BCC@dated 10th September 1993, published in the Gazette of India - Extraordinary - part 1, Section 1, No. 186 dated 13th September 1993. 2 Resolution No.12011/9/94-BCC dated 19th October 1994, published in the Gazette of India -Extraordinary - part 1, Section 1, No. 163, dated 20th October 1994. 3 Resolution No.12011/7/95-BCC, dated 24th May, 1995, published in Gazette of India Extraordinary - part 1, Section 1, No.88, dated 25th May 1995. 4) Resolution No.12011/44/96-BCC, dated 6th December 1996, published in Gazette of India -Extraordinary - part 1, Section 1, No.210, dated 11th December 1996. 5 Resolution No.12011 /68/93-BCC, published in Gazette of India - Extraordinary - No. 129, dated the 8th July 1997. 6) ResolutionNo.12011/12/96-BCC, published in Gazetteof India-Extraordinary No, 164, dated the 1st Sept. 1997. 7) Resolution No .12011/99/94-BCC, published in Gazetteof India -Extraordinary No.- 236, dated the 11th Dec. 1997. 8) Resolution No. 12011 /13/97-BCC, published in Gazette of India - Extraordinary No. - 239, dated the 3rd Dec. 1997. 9) Resolution No. 12011 /12/96-BCC, published in Gazette of India - Extraordinary No. -166, dated the 3rd Aug 1998. 10) Resolution No.12011 /68/93-BCC, published in Gazette of India - Extraordinary No. -171, dated the 6th Aug 1998. 11) Resolution No. 12011/68/98-BCC, published in Gazette of India- Extraordinary No. 241, dated the 27th Oct. 1999. 12) Resolution No. 12011/88/98-BCC, published in Gazetteof India -Extraordinary No. 270, dated the 6th Dec. 1999. 13) Resolution No. 12011 / 36/99-BCC, published in Gazette of India - Extraordinary No. 71, dated the 4th April. 2000. Shri/Smt./Km.*....and/or his/her family ordinarily reside(s) in the District of the State. This is also to certify that he/she does not belong to the persons/sections (Creamy Layer) mentioned in column 3 (of the Schedule to the Government of India Department of Personnel &Training QM No.36012/22//93-Estt (SCT). dated 8.9.1993) and modified vide Government of India, Department of Personnel and training O.M No.36033/3/2004 - Estt.(Res) dated 09.03.2004. DISTRICT MAGISTRATE / DY. COMMISSIONER ETC. Place *Strike out whichever is not applicable (With seal of Office) Date NB : (a) The term 'ordinarily' used here will have the same meaning as in section 20 of the Representation of Peoples Act 1950. (b) The Authorities competent to issue caste certificates are indicated below : (i) District Magistrate / Additional Magistrate / Collector / Deputy Commissioner / Additional Deputy Commissioner / Deputy Collector / 1st class Stipendiary Magistrate / Sub -Divisional Magistrate / Taluk Magistrate / Executive Magistrate / Extra Assistant Commissioner (not below the rank of 1st class Stipendiary Magistrate), (ii) Chief Presidency Magistrate / Additional Chief Presidency Magistrate / Presidency Magistrate, (iii) Revenue Officer not below the rank of Tahsildar, and (iv) Sub-Divisional Officer of the area where the Candidate and or his family resides.