



भारत संचार निगम लिमिटेड
(भारत सरकार का उद्यम)

BHARAT SANCHAR NIGAM LTD.
(A Government of India Enterprises)



BHARAT SANCHAR NIGAM LIMITED
(A Government of India Enterprise)

(Pers-III Section)
5th Floor, Bharat Sanchar Bhawan,
Janpath, New Delhi

No. 250-76/2001-pers-III

Dated: 4.12.2008

To

All Heads of the Telecom Circles,
Bharat Sanchar Nigam Limited.

**Sub: Forwarding of Scheme of Examination for Limited Departmental
Competitive Examination (LDCE) for TTA under 40% quota---regarding.**

I am directed to enclose herewith a copy of revised Scheme of Limited Departmental Competitive Examination (LDCE) for TTA under 40% quota for favour of further necessary action at your end please. The Syllabus for the LDCE of TTA as was circulated vide this office letter of even No. dated 17.10.2001 will remain the same. However, a copy of Syllabus is also attached for reference. Revised scheme shall be applicable for the examinations to be held henceforth.

Encl: As above.


(R.K.GUPTA)

ASSTT. GENERAL MANAGER (PERS-III)
TEL: 23310401 FAX: 23725255

Copy to:-

1. PGM (IR), BSNL CO, New Delhi.
2. AGM (DE-II), BSNL CO, New Delhi
3. General Secretary, BSNLEU, New Delhi.
4. Intranet
5. Guard File
6. Spare Copies
7. File No. 250-27/2008-Pers-III

BHARAT SANCHAR NIGAM LIMITED
(A Govt. of India Enterprise)

**SYLLABUS AND SCHEME OF EXAMINATION FOR LIMITED DEPARTMENTAL
COMPETITIVE EXAMINATION FOR TTAs**

(A) SCHEME OF EXAMINATION

There will be a single Objective Multiple-choice-type Paper of 100 Marks comprising of two Sections. The time allowed shall be (3) hours. The minimum qualifying marks in the examination for General candidates shall be 30% in each section and 40% in aggregate and for Scheduled Caste and Scheduled Tribe candidates 20% in each section and 33% in aggregate. Selection shall be made as per the merit in the examination based on aggregate marks. Each Section shall contain 50 questions of One (1) Mark each. There will be no negative marking.

SUBJECT	MAXIMUM MARKS	TIME ALLOWED
SECTION-I <u>ELECTRICALS,</u> <u>ELECTRONICS</u> <u>AND</u> <u>COMMUNICATION</u>	50	3 Hours
SECTION--II <u>DEPARTMENTAL</u> <u>PRACTICES</u>	50	
TOTAL	100 Marks	

SYLLABUSSECTION-I ELECTRICALS, ELECTRONICS AND COMMUNICATION

ELECTRICAL--- Three-phase versus Single phase supply, concept of inductance and capacitance and impedance in AC circuits, series and parallel AC Circuits, star and delta connections, relation between phase and line voltage. Ohm's Law and its application. Power factor and their measurement, refrigeration and air conditioning. Principles of operations of Transformer, application of small transformer in electronics and communication engineering. Semi-conductor devices—Principles of operation and characteristics of diode, zener diode, transistor. Application of these devices in electronics circuits e.g. half wave/full wave rectifiers, invertors etc. Electronic Circuits—Basic electronic circuits viz. amplifiers, oscillators, multi-vibrators and integrated circuits (ICs). Units of attenuation, decibels and Nepers, characteristics of attenuation and concept of low pass (LP), band pass (BP) and high pass (HP) filters. Concept of dbm, psophometric noise, cross-talk and their measurements,

COMMUNICATION---Modulation and demodulation—principle and operation of various types of AM, FM and PM modulators/demodulators; pulse modulation—TDM, Multiplexing, principles and application of PCM.

NETWORK, FILTERS AND TRANSMISSION LINES---Transmission lines and their application, characteristic impedance of line, principle of impedance matching, bandwidth consideration of a transmission line.

COMPUTERS---Computer and its working, types of computers, familiarization with DOS and windows—concept of file, directory, folders, number system (Binary, Octal and hexadecimal), Memory types, Personal computers and their typical uses, types and working of modems, OSI models.

SECTION-II DEPARTMENTAL PRACTICES

- (i) Various types of subscriber instruments, exchanges viz. C-DOT, RAX/SBM/MBM/E-10-B/New Technology Max-I and their working principles.
- (ii) Transmission systems functioning in DoT/BSNL and their working principles.
- (iii) Telex and Trunk working principles/repair/maintenance.
- (iv) Float rectifiers, power plant, engine alternator, batteries their operation and maintenance.
- (v) Operation and maintenance of 3 channel system.
- (vi) Repair of PCBs, connectors, soldering, de-soldering and pin-number in IC chips. Handling of ICs.
- (vii) Type of switch-boards, cables, their identification and laying/terminations.
- (viii) Organizational set up up-to Telecom Circle level.
- (ix) PABX, MDF, IDF, Racks, Ruses, Relays.
- (x) Various types of tools.
- (xi) Earthing practices and methodology.

