

## TN TRB PG Assistant Exam Pattern 2019

Name of Subject	Number of Questions	Number of Marks
Main Subject	110	110
Education Methodology	30	10
General Knowledge	10	10
<b>Total</b>	<b>150</b>	<b>150</b>

***Exam Type: Objective Type MCQs; Time Duration: 3 hours***

### TN TRB PG Assistant Exam Syllabus:

#### General Knowledge

- About India.
- History – India & World.
- Cultural Heritage.
- General Science.
- Space & IT.
- Science & Technology.
- Scientific observations.
- International issues.
- Abbreviations.
- Indian Constitution.
- National news (current).
- Indian Culture.
- Economy.
- Political Science.
- Indian National Movement.
- Indian Polity & Governance.
- General Politics.
- Awards and Honors.
- Culture.
- Economic Scene.
- Everyday Science.
- Sports and Games.
- Science – Inventions & Discoveries.
- Important Days.
- Important Financial & Economic News.
- Current Affairs – National & International.
- Indian Constitution.
- Indian Constitution.

#### Education Methodology Syllabus

- Implications for the teacher
- Role of rewards and punishments

- National Integration
- Special problems of rural and tribal people
- Eradication of poverty through Education
- The channel of International communication
- Pre-primary Education
- Environmental Education
- Non-formal and Adult Education
- Nutrition and health
- National Educational Policy (1986).
- Role of Educational Institutions

## **Main Subject Syllabus**

### **English**

- Shakespeare
- Approaches to Literature
- American Literature
- Indian Writing in English
- Modern Literature (1400 to present day) – Prose, Drama, Poetry
- Principles of Literary Criticism
- History of English Language
- Linguistics

### **Mathematics**

- Operations Research
- Real Analysis
- Algebra
- Fourier series and Fourier Integrals
- Differential Geometry & Equations
- Statistics – I, II
- Functional & Complex Analysis

### **Physics**

- Electronics (Digital)
- Probability and Theory of errors
- Classical mechanics
- Statistical Mechanics
- Vector Fields
- Quantum mechanics
- Spectroscopy
- Solid State Physics
- Nuclear Physics
- Electromagnetic theory

## **Chemistry**

- Application of Schrodinger equation, radioactivity
- VB theory, MO theory, and its applications
- Nonaqueous solvents
- Heterocyclics
- Optical activity and concept of chirality
- Conformational analysis
- Organic reaction mechanisms
- Periodic properties
- Old quantum theory
- Theory and applications of spectroscopic methods, reaction rates, etc.
- Thermodynamic equations of state
- Organometallic compounds
- Solid state & Co-ordination chemistry, properties

## **Zoology**

- Classification Binomial Nomenclature
- Biological Chemistry
- Role of minor and major elements in metabolism enzymes
- Cell and Molecular Biology
- Genetics-Gene Interactions
- Physiology, Nutrition
- Antigens and Antibodies
- Evolution
- Man and Biosphere

## **Botany**

- Viruses, Bacteria, Thallophytes, and Lichens
- Plant Pathology and Microbiology
- Bryophytes, Pteridophytes, and Gymnosperms
- Morphology, Taxonomy and Economic Botany
- Cell Biology and Genetics
- Anatomy and Embryology
- Plant Physiology and Bio-Chemistry
- Plant Breeding and Bio-Technology
- Ecology and Phytogeography
- Palaeo Botany and General Principles

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