

Railway Teacher Syllabus 2025

RRB Teacher Syllabus 2025 Common for All	
Subjects	Topics
Mathematics	Number Systems BODMAS, Decimals, Fractions, LCM and HCF, Ratio and Proportions, Percentage, Mensuration, Time and Work, Time and Distance, Simple and Compound Interest, Profit and Loss, Algebra, Geometry and Trigonometry Elementary Statistics, Square Root, Age Calculations, Calendar & Clock, Pipes & Cistern
General Intelligence and Reasoning	Analogies, Alphabetical and Number Series, Coding and Decoding, Mathematical Operations, Relationships, Syllogism, Venn Diagram, Data Interpretation and Sufficiency, Conclusions and Decision Making, Similarities and Differences, analytical reasoning, classification, directions, statements, and assumptions.
General Awareness	Knowledge of Current Affairs, Indian Geography, Culture and History of India, including freedom movement, Indian politics and Constitution, Indian Economy, Environmental issues concerning India and the World, Sports, General scientific and technological developments, etc
General Science	Physics, Chemistry and Life Sciences (up to 10th standard CBSE syllabus)

Railway Teacher Syllabus 2025 for Primary Teacher (PRT)

Railway Teacher Exam Pattern 2025 for Primary Teacher		
Topics	Sub-Topics	No. of Questions
Understanding the Learner	<ul style="list-style-type: none"> • Concepts of growth, maturation, and development, principles and debates of development, development tasks; and challenges • Domains of Development: Physical, Cognitive, Socio-emotional, Moral, etc. Deviations in development and its implications • Understanding Adolescence: Needs, challenges, and implications for designing institutional supports • Role of Primary and Secondary Socialization Agencies. Ensuring homeschool continuity 	18 to 20

<p>Understanding Teaching Learning</p>	<ul style="list-style-type: none"> ● Theoretical perspectives on learning: behaviorism, Cognitivism and Constructivism with special reference to their implications for: ● The role of the teacher ● The role of the learner ● Nature of teacher-student relationship ● Choice of teaching methods ● Classroom environment ● Understanding of discipline, power, etc ● Factors affecting learning and their implications for: ● Designing classroom instructions ● Planning student activities and ● Creating learning spaces in school ● Planning and Organization of Teaching-Learning ● Concept of Syllabus and Curriculum, Overt and Hidden Curriculum, ● Foundational Literacy and Numeracy, Early Childhood care and Education ● Competency-based Education, Experiential learning, etc. ● Instructional Plans: Year Plan, Unit Plan, Lesson Plan ● Instructional material and resources ● Information and Communication Technology (ICT) for teaching-learning ● Assessment of learning, for learning and as learning: meaning, purpose, and considerations in planning each. ● Enhancing Teaching-Learning processes: Classroom observation and feedback, reflections, and dialogues as a means of constructivist teaching 	<p>18 to 20</p>
<p>Creating a Conducive Learning Environment</p>	<ul style="list-style-type: none"> ● The concepts of diversity, disability and Inclusion, implications of disability as a social construct, types of disabilities, their identification and interventions ● The concept of school mental health addressing the curative, preventive, and promotive dimensions of mental health for all students and staff, providing for guidance and counseling ● Developing school and community as a learning resource 	<p>4 to 6</p>
<p>School Organization and Leadership</p>	<ul style="list-style-type: none"> ● Leader as a reflective practitioner, team builder, initiator, coach, and mentor ● Perspectives on School Leadership: instructional, distributed, and transformative ● Vision building, goal setting, and creating a School Development Plan ● Using school processes and forums for strengthening teaching learning (Annual Calendar, time-tabling, parent-teacher forums, school assembly, teacher development forums, using achievement data for 	<p>4 to 6</p>

	<p>improving teaching-learning, school self-assessment and improvement).</p> <ul style="list-style-type: none"> • Creating partnerships with community, industry, and other neighboring schools and Higher Education Institutes-forming learning communities 	
Perspectives in Education	<ul style="list-style-type: none"> • Role of school in achieving aims of education • NEP-2020: Early Childhood Care and Education: The Foundation of Learning; Foundational Literacy and Numeracy; Curriculum and Pedagogy in Schools; Holistic & Integrated Learning Equitable and Inclusive Education: Learning for All: competency-based learning and education • Guiding Principles for Child Rights, Protecting and provisioning for the rights of children to a safe and secure school environment, Right of Children to Free and Compulsory Education Act, 2009 • Historically studying the national policies in education with special reference to school education • School Curriculum Principles: Perspective, Learning and Knowledge, Curriculum Areas, School Stages—Pedagogy and Assessment 	2 to 3
TOTAL		50

Railway Teacher Syllabus 2025 for PGT and TGT

Topics	Sub-Topics	No. of Questions
Education	Philosophy of Education – various schools of Philosophy; Education according to Indian thinkers and Western thinkers	22 to 28
	Sociology and Education in the Indian Context - Sociological basis of education, Aspiration of Indian Society, Role & functions of home, school community, religion, media and state as agents of socialization. Education as an agent of social change, social adjustment and socio-economic development.	

	<p>Education, Culture and Human Values - Meaning and classification of values. Nature of moral and ethical values; Value oriented Education. Value crisis and role of education in resolving value crisis. Meaning and characteristics of culture and its relationship with education. Indian cultural Heritage and education. Cultural pluralism, cultural lag, cultural conflict, ambivalence and tolerance.</p> <p>Democracy and Education - Concepts of equality, freedom, democracy, authority and discipline. Human rights education with reference to child's rights.</p> <p>Education and Integration - Role of teacher and Educational Institutions</p>	
Psychology of Learner & Teaching	<p>Meaning, scope & Importance of educational psychology. Relationship of Education and Psychology; Process of Growth and Development; Intelligence: Its theories and measurement. Learning and Motivation; Psychology and education of exceptional children-creative, gifted, backward, learning disabled and mentally retarded. Evaluation</p>	13 to 18
Curriculum and Instruction	Curriculum Development, Transaction	8 to 12
Instructional Methods	Teacher–Controlled Instruction (TCI); Learner–Controlled Instructions (LCI); Group–Controlled Instruction (GCI);	
Skills and Competencies	Means of Instruction Delivery	
Total		50

Railway Teacher Syllabus 2025 for Physical Training Instructor (PTI)

Topics	Sub-Topics	No. of Questions
Physical Education in India	<p>Objectives, Principles and Components of Physical Education; Indian Olympic Association and International Olympic Committee; Role of Different Agencies in Promoting Health (WHO, UNICEF, Local Bodies); Concepts of Incentive, Achievement; Organization of other Physical Education and Sports Event (Seminar, Clinic, Lecture); Use of Audio-Visual Aids in Physical Education.</p>	10 to 12

Anatomy, Physiology, Exercise, Nutrition Diet & Hygiene	Physical Activity -Concept, Benefits of Participation in Physical Activities with Specific Reference to Health; concept, need, components and Significance of total fitness. Principles of Physical Fitness, Warming Up, Conditioning, and cooling down, Methods to Develop; and Measure Health and Skill related components of Physical fitness.	15 to 17
	Wellness -Concept components, Significance with reference to positive lifestyle. Concept of nutrition, balanced diet, Dietary Aids.	
	Energy and Activity - Calorie Intake and expenditure, energy balance equation, role of personal hygiene, mental hygiene, sleep hygienic, occupational hygiene in physical education and sports.	
Sports Injuries, Prevention & Health Education, Sports Medicine	Basic Concept, need and importance of anatomy and physiology in physical education. Definition and description of cell, tissue, organ and system; Brief introduction to skeletal system, muscular system, circulatory system, respiratory system, digestive system, excretory system, nervous system and endocrine system.	16 to 20
	Physiological factors affecting development of physical fitness components. Concepts of fatigue, stitch, cramp, oxygen debt, second wind.	
	Markers for training effects – Maximum heart rate, vital capacity, Intake volume, temperature regulation.	
	Postural Deformities – Types and causes (hypnosis, scoliosis, lordosis, knock knees, bow knees, flat foot) Corrective exercises.	
	Sports medicine and athletic care – Concept and significance, factors causing injuries.	
	General principles of prevention of injuries - Common sport injuries (muscle strain and ligament sprain, frozen shoulder, lower back strain, Tennis and Golfer’s elbow, Runner’s knee, shin pain, blister, concussion, laceration, abrasion, hematoma, fracture, dislocation).	
	Management of injuries (muscle strain and ligament sprain, frozen shoulder, lower back strain, Tennis and Golfer’s elbow, Runner’s knee, shin pain, blister, concussion, laceration, abrasion, fracture, dislocation). Sport injuries and first aid.	

	Rehabilitation – Aim and objective, recovery (ice bath, contrast bath, hot fomentation), Therapeutic modalities (therapeutic ultrasound, Inferential Therapy Unit, TENS infrared lamp, wax bath, short wave diathermy).	
	Definition, scope and importance of sports psychology Learning – Concept and principles of learning, learning curve. Emotion, anxiety and stress management in Sports	
Camping for Recreation	-	2 to 3
Important games and sports	-	4 to 6
Total		50

RRB Teacher Syllabus 2025 for Librarian

S No.	Topics	No. of Questions
I.	Universe of knowledge, Structure and Attributes, Modes of formation of subjects, Different types of subjects, Universe of subjects as mapped in different schemes of Classification.	12 to 14
II.	Bibliographic description, Catalog purpose, structure and types, Physical forms including OPAC filling rules, Normative principals of cataloging, Overview of principles of practice in document description, Current trends in standardization, Description and exchange, Standard course of cataloging.	12 to 14
III.	Method of knowledge organization, General knowledge of world and India, General theory of Library classification, Normative principles of classification and their applications, Species of Library classification, Standard schemes of classification and there features, CC, EDC, UDC, Notation: [need, functions, characteristics], Design and development of schemes library classification, Standard subdivision index, Trends in Library classification.	12 to 14
VI.	Subject Classification, Educational psychology, Principles of subject classification.	8 to 12
Total		50

Railway Teacher Syllabus 2025 for Lab. Assistant

RRB Teacher syllabus 2025 for Lab. Assistant includes posts for Physics, Chemistry and Biology. A total of 50 questions will be asked in Chemistry while 10 to 15 questions will be asked in the Physics subjects.

RRB Teacher Syllabus for Biology Lab. Assistant		
S. No.	Topics	No. of Questions
PART – A	General characters of: Algae, Fungi, Lichens, Bryophyta, Pterido-phyta, Gymnosperms and Angiosperms.	5 to 8
	Morphology of Angiosperms: Structure and Modification of Root, Stem and Leaf, Structure of flower and seed	
	Plant Anatomy: Tissue and Tissue System. Secondary growth.	
	Plant Physiology: Osmosis, Water Absorption Ascent of sap, Transpiration, Photosynthesis, Respiration, Plant growth and movement.	
	Environmental Studies: Structure and type of Ecosystem, Energy flow, Biogeo – Chemical Cycle, Ecological Adaptations, Environmental Pollution, Population Ecology, Biodiversity.	
	Biotechnology: General Account, Recombinant DNA technology, Transgenic Plants and Animal, Ethical Issues, Application of Biotechnology in Agriculture and Medical field.	
	Economic Importance of Plants.	
	Cell: Structure (Prokaryotic and Eukaryotic), cell theory and cell Division.	
PART – B	Genetics: Mendel’s law, General Terminology, Structure of DNA and RNA, Molecular basic of Heredity. Structure of chromosome, sex determination and genetic disorders in man.	6 to 8
	Classification of Animal Kingdom: up to Phyla in Non chordates and up to class in chordates.	
	Digestion Respiration and Excretion in human, Protein, Carbohydrate, Fat, Vitamin and digestive enzyme, Exchange of gases, Aerobic and Anaerobic respiration, Krebs cycle, Glycolysis, Excretory substance. Structure and Physiology of Kidney.	
	Circulatory and Endocrine System of Human: Structure of Heart, Composition of blood, blood groups, Blood clotting, Lymph glands, Antigen and Antibodies. Endocrine glands and their hormones	

	Nervous System of Human: Structure of Brain, Eye and Ear; Structure of Neuron, nerve impulse.	
	Muscular System: Type of Muscles and Muscle contraction.	
	Reproduction System in Human and Human Diseases: Structure and Reproductive health. Disease in humans caused by Bacteria, Virus, Protozoa, Fungi and Helminthes	
	Biological Evolution, Economic Importance of Animals.	
RRB Teacher Syllabus for Physics Lab. Assistant		
S. No.	Sub-Topics	No. of Ques.
Dynamics of Rigid Body	Torque, Conservation of angular momentum, moment of inertia of simple geometrical objects.	10 to 15
Thermodynamics	First & Second law of thermodynamics, heat engines and refrigerators	
Oscillations	Simple harmonic motion & its example, Resonance	
Waves	Principle of super-position of waves, Doppler effect	
Electrostatics	Coulomb's law, electric field, Gauss's theorem & its applications	
Electric Current	Kirchhoff's law, Wheatstone-bridge, meter-bridge, potentiometer	
Optics	Microscope & telescope, interference, diffraction & Polarization, polarimeter	
Atom	Bohr's model of H-atom.	
Nuclei	Mass defect, nuclear binding energy, nuclear fission & fusion	
Semi-conductor Electronics	PN junction, transistor, logic gates, diode as a rectifier, zener diode.	
RRB Teacher Syllabus for Chemistry Lab. Assistant		
S. No.	Topics	No. of Ques.
Periodic Table & Atomic Properties:	Fundamental particles of an atom (electron, proton, neutron), Rutherford's nuclear model, Quantum Nos., Pauli's exclusion principle, Aufbau principle, Types of orbital (s, p, d, f) shape of orbital, Hund's rule, Modern periodic table, Variation in atomic properties (Size, ionization, potential, Electron affinity, Electronegativity)	2

s-Block & p-Block Elements	General introduction, Electronic configuration, Occurrence, Oxidation states, Trends in Physical & Chemical properties, Inert pair effect	2
Chemical Equilibrium	Factors affecting Equilibrium, Reversible and Irreversible reactions, Laws of chemical Equilibrium, Le Chatelier's principle	2
Ionic Equilibrium	Acid base equilibrium, Ph Value, Common ion effect, Buffer solutions, Acid Base titration	2
Gaseous State	Properties, Boyle's Law, Charles Law, Avogadro's Law, Dalton's Law, Ideal gas equation, Graham's law of diffusion, Kinetic theory of gases	2
Liquid State	Properties of liquids, Vapour pressure, Surface tension, Viscosity	2
Solid State	Properties of solids, Classification of solids, Unit cells & their types, Packing of crystals, Structure of simple ionic compounds	2
Solutions	Solute, Solvent, Solution, Concentration of solutions (Molarity, Normality, Formality, Molality, Mole fraction, weight percent), Types of solutions (Gas solutions, Liquid solutions, Solid solutions, Raoult's Law, Ideal & Non ideal solutions, Colligative properties of solutions	2
Nomenclature & General Properties of Organic Compounds	Rules of IUPAC nomenclature, Types of reactions (Substitution, Addition, Elimination), Electrophiles, Nucleophiles, Inductive effect, Electromeric effect, Resonance, Hyperconjugation, Steric effect, Isomerism (structural & stereo)	2
Hydrocarbons	Definition & types of hydrocarbons (Alkane, Alkene, Alkyne, Arene), Preparation of hydrocarbons, Physical properties, Chemical properties	2
Total		50

Railway Teacher Syllabus for Music Tutor

S. No.	Topics	No. of Questions
1	Appreciation of music, Bada Khayal and Chota Khayal, Brief History of Bharatnatya Shatra and Sangeet Ratnakar, Classification of music	8 to 12
2	Concept of ragas and talas in Indian music, classification of ragas, concept singing, different gharanas and their histories, evolution of notation system, forms of light music	8 to 12

3	History of Indian music arts, importance of music festivals/ seminars/ conferences	7 to 11
4	Laws of acoustics; musical sound wave motion, frequency pitch, volume	7 to 11
5	Music and Literature, Place of music in fine arts, Role of music in multi-media, Taal study, Vocal and Instrumental music	7 to 11
6	Computer and its Applications	2 to 4
Total		50

RRB Teacher Syllabus for Female Assistant Teacher

Topics	Subtopics	No. of Questions
Educational Psychology	Intelligence: Nature, Meaning & Measurement; Learning; Growth and development of Child; Personality Development and Adjustment; Individual Differences among Children	25 to 29
Education Technology & Teaching-Learning Process; Communication Skills	Teaching –learning materials: textbook, multi-media materials, multilingual resource of the classroom; Remedial Teaching	18 to 22
Computer and its Applications	--	2 to 4