

### **13.0 RECRUITMENT PROCESS:**

- 13.1** Candidates should apply only through online mode through the official websites of any RRBs. Candidates can apply to only one RRB and only one common online application (in order of preference for any or all the notified posts). **The selection of RRB once exercised shall be final. Application to more than one RRB by a candidate will lead to rejection of all the applications.**
- 13.2** During the ONLINE APPLICATION, candidates will be asked to 'Create Account'. If a candidate has already created an Account for CENs notified in 2024, they should use same account credentials to log in and apply for this CEN as well. If the candidates have not created an Account earlier, they must first 'Create an Account' before proceeding to fill up the application for this CEN. Candidates are advised to fill in the details required for account creation with utmost care, as corrections of any kind will not be permitted once the account is created. Details filled in the 'Create an Account' form (including mobile number and Email ID) cannot be modified at any stage once the account is created.
- 13.3** The recruitment process shall involve Single Stage CBT, Performance Test/Teaching Skill Test, Translation Test (as applicable) and DV/Medical Examination. However, RRB reserves the right to conduct additional CBTs if considered necessary for all or for a limited number of candidates as may be deemed fit by RRBs.
- 13.4** The date, time and venue for all the activities viz. CBT, Performance Test/Teaching Skill Test, Translation Test, DV, Medical

Examination or any other additional activity as applicable shall be fixed by the RRBs and shall be intimated to the eligible candidates in due course. Request for postponement of any of the above activity or for change of venue, date and shift will not be entertained under any circumstances.

- 13.5** The Question Paper for Single Stage CBT will be of 90 minutes duration for 100 questions and 120 minutes for PwBD candidates who are availing the Scribe facility.
- 13.6** The Question Papers shall be of objective multiple-choice type.
- 13.7** The standard of questions for the Single Stage CBT will be generally in conformity with the educational standards prescribed for the posts. The questions pertaining to Professional Ability shall be from the syllabus of every notified post mentioned at **Annexure-VIII to XXI**.
- 13.8 Section-wise marks:** The **section wise number of questions and marks** for all the posts except Junior Translator/Hindi are detailed below :

Subject	Number of questions	Marks allotted
Professional Ability	50	50
General Awareness	15	15
General Intelligence and Reasoning	15	15
Mathematics	10	10
General Science	10	10
<b>Total</b>	<b>100</b>	<b>100</b>

Each question will be of one mark each.

The section wise distribution given in the above table is only indicative and there may be some variations in the actual question papers. **There will be negative marking and 1/3 mark shall be deducted for each wrong answer.**

- 13.9** The Questions for all the posts except Junior Translator/Hindi are likely to include questions pertaining to:

**a. 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.

**b. General Intelligence and Reasoning:**

Analogies, Alphabetical and Number Series, Coding and Decoding, Mathematical Operations, Relationships, Syllogism, Jumbling, Venn Diagram, Data Interpretation and Sufficiency, Conclusions and Decision Making, Similarities and Differences, Analytical Reasoning, Classification, Directions, Statement- Arguments and Assumptions etc.

**c. General Awareness:** Knowledge of Current Affairs, Indian Geography, Culture and History of India including freedom movement, Indian Polity and Constitution, Indian Economy, Environmental issues concerning India and the World, Sports, General scientific and technological developments etc.

**d. General Science: Physics, Chemistry and Life Sciences (up to 10th standard CBSE syllabus).**

- 13.10** Minimum percentage of marks for eligibility in various communities: UR-40%, EWS-40%, OBC(Non Creamy Layer)-30%, SC-30% and ST-25%. These percentages of marks for eligibility may be relaxed by 2 marks for PwBD candidates in case of shortage of PwBD candidates against vacancies reserved for them.

- 13.10.1** Where a second stage CBT is deemed necessary and held, RRBs reserve the right to treat the first stage CBT as a qualifying test for the purpose of shortlisting a reasonable number of candidates for the second stage CBT.

- 13.11** The normalized marks scored by the candidate in the CBT shall be used for shortlisting the candidates for Performance Test/Teaching Skill Test, Translation Test, DV (as applicable) for the posts.

**13.12 Junior Translator/Hindi:**

A single stage Computer Based Test will be conducted followed by a qualifying translation test. The Question Paper shall be designed to test equally both the knowledge of English language as well as knowledge of Hindi language. Atleast 50% of the questions will be designed to test language proficiency – 20% for English and 30% for Hindi. The syllabus for the language portion of CBT is given in **Annexure-VII**. The remaining questions will be designed to test General Knowledge, General Intelligence, Simple Arithmetic and basics of computer.

### **Translation Test**

- (i) Translation Test shall not be a part of the main examination. Candidates 10 times the number of vacancies shall be called for the translation test, based on the merit of the objective type CBT, duly taking into account reservation requirements.
- (ii) The Translation Test shall be only a qualifying test and the qualifying pass marks shall be 60%.

**13.13.1** Merit list of Junior Translator will be based on the marks obtained in the CBT alone. Those who do not qualify in translation test with 60% marks shall be disqualified.

### **13.13 Performance Test/Teaching Skill Test**

Apart from the CBT of 100 marks as brought at para 13.8, teachers will be subjected to Performance Test (PT) and Teaching Skill Test (TST).

For the Post Graduate Teachers (PGTs), Trained Graduate Teachers (TGTs), Physical Training Instructor (PTI) and Primary Teachers/Assistant Teacher/Junior School (PRTs) the recruitment shall be done on the basis of Written Test (CBT) and Teaching Skill Test in the ratio of 85:15.

For the post of Music Teacher, Trained Graduate Teacher/Music, Trained Graduate Teacher/Craft, Trained Graduate Teacher/Drawing, the weightage of Written Test (CBT), Performance Test and Skill Test will be in the ratio of 60:25:15 respectively.

**Teaching Skill Test:-** Teaching Skill Test shall be based on Teaching Ability, Teaching Methodology, Content Expertise, Appropriateness of material, Incorporation of recent development in the discipline, Communication skill, Presentation Skill, Classroom Management Skill, understanding of Subject Matter, Problem Solving ability, Decision making, Creativity, Leadership & Motivation Quality. Candidates will be asked to teach some topics of their subject through power point presentation in front of the Committee. Topics will be decided by the Committee on the spot. Candidates will be given sufficient time to prepare and will be asked to use PowerPoint presentation or any other teaching aid as per the availability of equipments at the point of skill Test. The Skill Test shall range between 15 to 30 minutes as decided by the Committee. Skill Test will be of 150 marks. There will not be any minimum qualifying marks for Skill Test. However, weightage of Skill test should be 15% in total marks. There is a possibility that the Skill Test can be video-graphed.

**Performance Test:** Music Teacher, Trained Graduate Teacher/Music may be adjudged on the basis of skill of singing, playing the various instrumental music, Presentation Skill, Coordination, Expression, Energy level, Rhythm, Experimentation with art forms, imagination and innovation and Artistic temperament.

Trained Graduate Teacher/Craft, Trained Graduate Teacher/Drawing may be adjudged on performance of art forms/ paintings/ sketches/ crafts, innovative and creative approach, Aesthetic sensibilities, Observation skill, interpretation and Originality, Correlation with real life, Experimentation with different art Modes and mediums, Proportion in size and clarity and importance of colour, balance and brightness.

Topics will be decided by the Committee on the spot. Candidates will be given sufficient time to prepare and will be asked to use any teaching aid as per the availability of equipments at the place of Performance Test.

Performance Test shall be of 100 marks. There will not be any minimum qualifying marks for the Performance Test. However, weightage of Performance Test shall be 25% of the total marks. There is a possibility that the Performance Test may be video- graphed.

### **13.14 Document Verification (DV):**

Based on the performance of candidates in CBT and Performance Test/Teaching Skill Test, Translation Test (as applicable), candidates equal to the number of vacancies will be called for Document Verification as per their merit and options. In case of two or more candidates securing same marks, their merit position shall be determined by age criteria i.e., older person shall be placed at higher merit and in case age being same, then alphabetical order (A to Z) of the name shall be taken into account to break the tie.

Candidates are advised to ensure that they belong to the community/ category indicated in their application form and during document verification they must substantiate their claim by providing a valid certificate from the competent authority. Failure to do so will result in the cancellation of their candidature. Additionally, candidates are cautioned that fraudulent claims regarding SC/ST/OBC(NCL)/EWS/PwBD/ExSM status or improper availing of benefits will lead to disqualification and debarment from the examinations/recruitments conducted by the RRBs/RRCs.

- 13.15** Appointment of selected candidates is subject to their passing requisite Medical Fitness Test to be conducted by the Railway Administration/RRB, final verification of educational and community certificates and verification of antecedents/character of the candidates. Candidates may please note that RRBs only recommend names of the empanelled candidates and appointment is offered ONLY by the respective Railway Administrations. It may also be noted that all candidates successful in Document Verification (DV) are sent for medical examination.

## JUNIOR TRANSLATOR/HINDI

1. The General Portion for this paper will contain 50 questions.
2. In the language portion, 30 questions will be from Hindi language and 20 questions will be from English language. These 50 questions will not be translated in other languages. As such, questions pertaining to Hindi language will be printed in Hindi only and questions pertaining to English language will be printed in English only.

**NOTE:** Difficulty Level will be of Standard 12th(+2Stage)

### **Syllabus for Hindi Language:**

(Three Questions each)	
Sl. No.	Topics
1.	समानार्थी शब्द
2	पर्यायवाची शब्द
3	विलोम शब्द
4	प्रत्यय
5	उपसर्ग
6	सन्धि विच्छेद
7	मुहावरे और लोकोक्तियाँ
8	तत्सम-तद्भव
9	वाक्यांश के लिए एक शब्द
10	शब्द/वाक्य शुद्धि

### **Syllabus for English Language:**

(Two Questions each)	
Sl. No.	Topics
1.	Synonyms/Antonyms
2	Translation into Hindi
3	Suffix/Prefix
4	Phrases/Idioms
5	Arrange the words in proper sequence
6	Pronouns/Verbs/Tenses
7	Articles/Preposition/Conjunctions
8	Adjectives/Adverbs
9	Question Tag
10	Active & Passive voice

**STAFF & WELFARE INSPECTOR**

Sl No.	Topics	No. of Questions
1.	<b>Industrial Relations:</b> Industrial Disputes Act, 1947; Indian Trade Union Act, 1926; Industrial Employment [Standing Orders] Act, 1946.	9 to 11
2.	<b>Social Security Legislation:</b> Workmen's Compensation Act, 1923; Employees' Provident Fund Act, 1952; Employees' State Insurance Act, 1948; The Maternity Benefit Act, 1961.	9 to 11
3.	<b>Law relating to wages:</b> The Minimum Wages Act, 1948; Payment of Wages Act, 1936; The Payment of Bonus Act, 1965; Payment of Gratuity Act, 1972.	9 to 11
4.	<b>Legislation affecting Conditions of work:</b> Indian Factories Act, 1948; The Mines Act, 1952.	7 to 10
5.	<b>Basics of Computers and applications:</b> Input & output devices; MS Office;	3 to 5
6.	<b>Right To Information Act - provisions thereof.</b>	2 to 4
7.	<b>New Pension Scheme</b>	1 to 3
<b>Total</b>		<b>50</b>

## CHIEF LAW ASSISTANT

SI No.	Topics	No. of Questions
1.	<b>Indian Constitution:</b> Preamble and Salient Features, Fundamental Rights and Duties, Directive Principles of State Policy, Union Legislature, Executive & Judiciary.	3 to 5
2.	<b>Administrative Law:</b> Nature and Scope of Administrative Law; Legislative power of the administration; Judicial power of Administration; Judicial control of Administrative action; Corporations and Public undertaking.	2 to 3
3.	<b>Jurisprudence:</b> Nature and Concept, Schools of Jurisprudence, Sources of Law, Legal Concepts, Legal Persons	3 to 4
4.	<b>Law of Torts:</b> General concepts.	2 to 3
5.	<b>Hindu Law:</b> Sources, Marriage, Divorce, Maintenance, Adoption, Gift, Succession.	3 to 4
6.	<b>Code of Civil Procedure:</b> General; Suits, Execution; Appeals; Reference, Review and Revision; Written Statement, Set-off and Counter-claim; Examination, Discovery, Admissions and Documents Law.	5 to 7
7.	<b>Bharatiya Nagrik Surakha Sanhita:</b> Various sections.	2 to 3
8.	<b>Bharatiya Nyaya Sanhita:</b> General; Punishments; Abetment, Criminal Conspiracy; Offences against the State, Contempt's of the Lawful Authority of Public Servants, False Evidence; Offences affecting the Human Body and Property.	2 to 3
9.	<b>Bharitya Sakshya Adhiniyam 2023:</b> Relevancy of Facts; Facts which need not be proved; Oral Evidence; Documentary Evidence; Burden of Proof; Estoppel; Examination of Witnesses and of the Improper Admission and Rejection of Evidence.	2 to 3
10.	<b>Indian Contract Act, 1872:</b> Agreement, Contract and Proposal; Acceptance; Consideration; Capacity to Contract; Factors vitiating Consent; Legality of Object; Performance of Contracts; Breach of contract; Indemnity and Guarantee ; Bailment.	2 to 3
11.	<b>Limitation Act, 1963:</b> Preliminary and Limitation of Suits, Appeals and Applications; Period of Limitation; Acquisition of Ownership by Possession and Miscellaneous.	2 to 3
12.	<b>Specific Relief Act, 1963:</b> Specific Relief & Preventive Relief.	1 to 2
13.	<b>Indian Partnership Act, 1932:</b> Nature of Partnership and Relations of Partners to one another; Relations of Parties to Third Person; Incoming and Outgoing Partners; Dissolution of a Firm; Registration of Firms.	1 to 2
14.	<b>Arbitration and Conciliation Act, 1996:</b> Arbitration; Conciliation	2 to 3
15.	<b>Consumer Protection Act:</b> General Provisions.	1 to 2
16.	<b>Protection of Human Rights:</b> General Provisions.	1 to 2
17.	<b>Transfer of Property Act:</b> General, Transfers of Property by Act of Parties; Sales of Immovable Property; Mortgages of Immovable Property and Charges; Lease of Immovable Property; Exchanges; Gifts.	2 to 3
18.	<b>Right to Information Act:</b> Obligations of public authorities; Central & State information commission; Appeals and penalties.	1 to 2
19.	<b>Company Law:</b> Formation, Registration and Incorporation of company; Capital Formation; Corporate Administration and Winding up of Companies.	2 to 3
20.	<b>Labour Laws:</b> Industrial Disputes Act, 1947; Trade Unions Act, 1926; The Employees State Insurance Act, 1948; The Employees Provident Fund Act, 1952; The Maternity Benefit Act, 1961; The Minimum Wages Act, 1948; The Factories Act, 1948; Payment of Wages Act, 1936.	3 to 5
<b>Total</b>		<b>50</b>

# SENIOR PUBLICITY INSPECTOR

SI No.	Topics	No. of Questions
1.	<b>Communications</b> Introduction to communication; History of communication; Tools; Fundamentals of communication; Types of communication; Essentials of communication; Theories of communication; Effective principles; Process of communication; Factors affecting process of communication; Forms of communication; Oral Communication.	12 to 15
2.	<b>Mass Communication</b> Eras of Mass Communication; Introduction & history of mass communication; Culture & functions of mass communication; Tools of Mass communication; Journalism; Press Codes & Ethics; Elements of mass communication; The Psychology and Sociology of Media Audiences; Models of mass communication; Theories of mass communication; Issues in communication; Mass media and public opinion.	12 to 15
3.	<b>Advertising</b> Concept, Functions of Advertising, Factors determining advertising opportunity of a product/service/idea, Types and classification of Advertising Display/Classified/Trade/Product/Financial/Corporate etc., Brand Management and Positioning, Creative and Campaign Concepts; Social and Economic Impact of Advertising, Advertising: Ethics, code and Law, Brand equity and advertising. Advertising Agency - Types of agency, Structure, Functions, Roles, & Scope. Agency client relations, Apex organizations: DAVP, INS, ISA, AAAI.	10 to 13
4.	<b>Public Relations</b> Public Relations; Development of Public Relations; PR in India; Public Opinion; PR Process; PR for Internal Communication; PR for External Public; Mass Media of Communication; Ethics and PR; Dealing with Media/Functioning of Media; Role of Writing in PR; Emerging Challenges in PR. PR Management - Event Management, Crisis Management, Time Management & Stress Management. PR Laws - Code of ethics, PR and Press Council, Defamation, Official Secret Act 1923, Copyright Act 1957, Press Registration of Book Act 1867. Contempt of court COMPUTER and its APPLICATIONS (2 to 3 questions)	10 to 13
5.	Topic and coverage on Social Media like Blogs, Twitter, Youtube etc	3 to 5
<b>Total</b>		<b>50</b>

**ALL POST GRADUATE TEACHERS (PGTs)/TRAINED GRADUATE TEACHERS (TGTs)**

<b>Sl No.</b>	<b>Topics</b>	<b>No. of Questions</b>
1.	<b>Education</b>	22 to 28
	<b>Philosophy of Education</b> – various schools of Philosophy; Education according to Indian thinkers and Western thinkers.	
	<b>Sociology and Education in the Indian Context</b> - 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.	
	<b>Education, Culture and Human Values</b> - 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.	
	<b>Democracy and Education</b> - Concepts of equality, freedom, democracy, authority and discipline. Human rights education with reference to child's rights.	
	<b>Education and Integration</b> - Role of teacher and Educational Institutions	
2.	<b>Psychology of Learner &amp; Teaching</b>	13 to 18
	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	
3.	<b>Curriculum and Instruction</b> - (8 to 12 Questions):	8 to 12
	Curriculum Development, Transaction,	
	<b>Instructional Methods</b> - Teacher–Controlled Instruction (TCI); Learner–Controlled Instructions (LCI); Group–Controlled Instruction (GCI);	
	Skills and Competencies; Means of Instruction Delivery.	
	<b>Total</b>	<b>50</b>



**PHYSICAL TRAINING INSTRUCTOR (PTI)**

<b>Sl No.</b>	<b>Topics</b>	<b>No. of Questions</b>
1.	<b>Physical Education in India</b> 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; Organisation of other Physical Education and Sports Event (Seminar, Clinic, Lecture); Use of Audio-Visual Aids in Physical Education.	10 to 12
2.	<b>Anatomy, Physiology, Exercise, Nutrition Diet &amp; Hygiene</b> <b>Physical Activity</b> -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. <b>Wellness</b> -Concept components, Significance with reference to positive lifestyle. Concept of nutrition, balanced diet, Dietary Aids. <b>Energy and Activity</b> - Calorie Intake and expenditure, energy balance equation, role of personal hygiene, mental hygiene, sleep hygienic, occupational hygiene in physical education and sports.	15 to 17
3.	<b>Sports Injuries, Prevention &amp; Health Education, Sports Medicine</b> 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. Physiological factors affecting development of physical fitness components. Concepts of fatigue, stitch, cramp, oxygen debt, second wind. <b>Markers for training effects</b> – Maximum heart rate, vital capacity, Intake volume, temperature regulation. <b>Postural Deformities</b> – Types and causes (hypnosis, scoliosis, lordosis, knockknees, bow knees, flat foot) Corrective exercises. <b>Sports medicine and athletic care</b> – Concept and significance, factors causing injuries. <b>General principles of prevention of injuries</b> - 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. <b>Rehabilitation</b> – 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). <b>Definition, scope and importance of sports psychology</b> <b>Learning</b> – Concept and principles of learning, learning curve. Emotion, anxiety and stress management in Sports.	16 to 20
4.	<b>Camping for Recreation</b>	2 to 3
5.	<b>Important games and sports</b>	4 to 6
<b>Total</b>		<b>50</b>

**ASSISTANT TEACHER**

<b>SI No.</b>	<b>Topics</b>	<b>No. of Questions</b>
1.	<b>Educational Psychology</b>	25 to 29
	Intelligence: Nature, Meaning & Measurement; Learning; Growth and development of Child; Personality Development and Adjustment; Individual Differences among Children	
2.	<b>Education Technology &amp; Teaching-Learning Process; Communication Skills</b>	18 to 22
	Teaching –learning materials: textbook, multi-media materials, multilingual resource of the classroom; Remedial Teaching.	
3.	Computer and its Applications	2 to 4
<b>Total</b>		<b>50</b>

**MUSIC TEACHER**

<b>Sl No.</b>	<b>Topics</b>	<b>No. of Questions</b>
<b>1.</b>	Appreciation of music, Bada Khayal and Chota Khayal, Brief History of Bharatnatya Shatra and Sangeet Ratnakar, Classification of music.	8 to 12
<b>2.</b>	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
<b>3.</b>	History of Indian music arts, importance of music festivals/ seminars/ conferences.	7 to 11
<b>4.</b>	Laws of acoustics; musical sound wave motion, frequency pitch, volume	7 to 11
<b>5.</b>	Music and Literature, Place of music in fine arts, Role of music in multi-media, Taal study, Vocal and Instrumental music	7 to 11
<b>6.</b>	Computer and its Applications	2 to 4
<b>Total</b>		<b>50</b>

**LAB ASSISTANT GRADE III CHEMIST & METALLURGIST**

<b>Sl No.</b>	<b>Topics</b>		<b>No. of Questions</b>
<b>I.</b>	Basic fundamentals of Mechanical Testing i.e. Tensile Testing, Impact Testing, Load Deflection Testing, Bend Test etc.		<b>4 to 8</b>
<b>II.</b>	Basic knowledge of various types of Equipments & Machines used in testing.		<b>3 to 6</b>
<b>III.</b>	Basic knowledge of materials like Steel, Cast-Iron, Non-ferrous Metals, Rubber, Plastics & Composites.		<b>6 to 8</b>
<b>IV.</b>	<b>a)</b>	Estimation of C, Mn, Si, S, P, Cr, Ni & Mo & other elements in Steel & Cast Iron & their effects.	<b>2 to 3</b>
	<b>b)</b>	Testing of Non-ferrous Metals & Alloys.	<b>2 to 4</b>
	<b>c)</b>	Fundamentals of Electroplating & Testing of various Electro-plated coach components.	<b>2 to 5</b>
<b>V.</b>	<b>a)</b>	Painting Schedule in coaches & Paint defects.	<b>2 to 4</b>
	<b>b)</b>	Testing of ROZ Primer, Synthetic Enamels & P.U. Paints.	<b>2 to 4</b>
<b>VI.</b>	Testing of Rubber & Rubber products, L.P. Sheets, Wood, Adhesives, PVC, Rexine, Plywood Foam & FRP items.		<b>3 to 6</b>
<b>VII.</b>	Oils & Lubricants: Testing of Oils & Lubricants, Grease etc.		<b>3 to 5</b>
<b>VIII.</b>	Non-Destructive Testing:		
	<b>a)</b>	Knowledge of X-Rays testing & Gamma Rays Examination of welding and steel castings. Film Developing & fundamentals of Radiography.	<b>2 to 5</b>
	<b>b)</b>	Principles of Ultrasonic Testing.	<b>2 to 4</b>
	<b>c)</b>	Magnaflux & Dye Penetrant Testing.	<b>2 to 3</b>
<b>TOTAL</b>			<b>50</b>

**LABORATORY ASSISTANT/SCHOOL**

Sl No.	Topics	No. of Questions
<b>BIOLOGY</b>		
<b>PART – A</b>		<b>5 to 8</b>
a.	<b>General characters of:</b> Algae, Fungi, Lichens, Bryophyta, Pterido-phyta, Gymnosperms and Angiosperms.	
b.	<b>Morphology of Angiosperms:</b> Structure and Modification of Root, Stem and Leaf. Structure of flower and seed.	
c.	<b>Plant Anatomy:</b> Tissue and Tissue System. Secondary growth.	
d.	<b>Plant Physiology:</b> Osmosis, Water Absorption Ascent of sap, Transpiration, Photosynthesis, Respiration, Plant growth and movement.	
e.	<b>Environmental Studies:</b> Structure and type of Ecosystem, Energy flow, Biogeo – Chemical Cycle, Ecological Adaptations, Environmental Pollution, Population Ecology, Biodiversity.	
f.	<b>Biotechnology:</b> General Account, Recombinant DNA technology, Transgenic Plants and Animal, Ethical Issues, Application of Biotechnology in Agriculture and Medical field.	
g.	Economic Importance of Plants.	
h.	<b>Cell:</b> Structure (Prokaryotic and Eukaryotic), cell theory and cell Division.	
<b>PART – B</b>		<b>6 to 8</b>
a.	<b>Genetics:</b> Mendel's law, General Terminology, Structure of DNA and RNA, Molecular basic of Heredity. Structure of chromosome, sex determination and genetic disorders in man.	
b.	<b>Classification of Animal Kingdom:</b> up to Phyla in Non chordates and up to class in chordates.	
c.	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.	
d.	<b>Circulatory and Endocrine System of Human:</b> Structure of Heart, Composition of blood, blood groups, Blood clotting, Lymph glands, Antigen and Antibodies. Endocrine glands and their hormones.	
e.	<b>Nervous System of Human:</b> Structure of Brain, Eye and Ear; Structure of Neuron, nerve impulse.	
f.	<b>Muscular System:</b> Type of Muscles and Muscle contraction.	
g.	<b>Reproduction System in Human and Human Diseases:</b> Structure and Reproductive health. Disease in humans caused by Bacteria, Virus, Protozoa, Fungi and Helminthes.	
h.	Biological Evolution, Economic Importance of Animals.	
<b>PHYSICS</b>		<b>10 to 15</b>
a.	<b>Dynamics of Rigid Body:</b> Torque, Conservation of angular momentum, moment of inertia of simple geometrical objects.	
b.	<b>Thermodynamics:</b> First & Second law of thermodynamics, heat engines and refrigerators.	
c.	<b>Oscillations:</b> Simple harmonic motion & its example. Resonance.	
d.	<b>Waves:</b> Principle of super-position of waves, Doppler effect.	
e.	<b>Electrostatics:</b> Coulomb's law, electric field, Gauss's theorem & its applications	

Sl No.	Topics	No. of Questions
f.	<b>Electric Current:</b> Kirchhoff's law, Wheatstone-bridge, meter-bridge, potentiometer	
g.	<b>Optics:</b> Microscope & telescope, interference, diffraction & Polarisation, polarimeter.	
h.	<b>Atom:</b> Bohr's model of H-atom.	
i.	<b>Nuclei:</b> Mass defect, nuclear binding energy, nuclear fission & fusion.	
j.	<b>Semi-conductor Electronics:</b> PN junction, transistor, logic gates, diode as a rectifier, zener diode.	
<b>CHEMISTRY</b>		
<b>Unit – 1 – Periodic Table &amp; Atomic Properties:</b>		<b>2</b>
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)		
<b>Unit – 2 – s-Block &amp; p-Block Elements</b>		<b>2</b>
General introduction, Electronic configuration, Occurrence, Oxidation states, Trends in Physical & Chemical properties, Inert pair effect		
<b>Unit – 3 – Chemical Equilibrium</b>		<b>2</b>
Factors affecting Equilibrium, Reversible and Irreversible reactions, Laws of chemical Equilibrium, Le Chatelier's principle		
<b>Unit – 4 – Ionic Equilibrium</b>		<b>2</b>
Acid base equilibrium, Ph Value, Common ion effect, Buffer solutions, Acid Base titration		
<b>Unit – 5 – Gaseous State</b>		<b>2</b>
Properties, Boyle's Law, Charles Law, Avogadro's Law, Dalton's Law, Ideal gas equation, Graham's law of diffusion, Kinetic theory of gases		
<b>Unit – 6 – Liquid State</b>		<b>2</b>
Properties of liquids, Vapour pressure, Surface tension, Viscosity		
<b>Unit – 7 – Solid State</b>		<b>2</b>
Properties of solids, Classification of solids, Unit cells & their types, Packing of crystals, Structure of simple ionic compounds		
<b>Unit – 8 – Solutions</b>		<b>2</b>
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)		
<b>Unit – 9 – Nomenclature &amp; General Properties of Organic Compounds</b>		<b>2</b>
Rules of IUPAC nomenclature, Types of reactions (Substitution, Addition, Elimination), Electrophiles, Nucleophiles, Inductive effect, Electromeric effect, Resonance, Hyperconjugation, Steric effect, Isomerism (structural & stereo)		
<b>Unit – 10 – Hydrocarbons</b>		<b>2</b>
Definition & types of hydrocarbons (Alkane, Alkene, Alkyne, Arene), Preparation of hydrocarbons, Physical properties, Chemical properties		
<b>TOTAL</b>		<b>50</b>

**LIBRARIAN**

<b>Sl No.</b>	<b>Topics</b>	<b>No. of Questions</b>
<b>I.</b>	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.	<b>12 to 14</b>
<b>II.</b>	Bibliographic description, Catalog purpose, structure and types, Physical forms including OPAC filling rules, Normative principles of cataloging, Overview of principles of practice in document description, Current trends in standardization, Description and exchange, Standard course of cataloging.	<b>12 to 14</b>
<b>III.</b>	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 their features, CC, EDC, UDC, Notation: [need, functions, characteristics], Design and development of schemes library classification, Standard sub-division index, Trends in Library classification.	<b>12 to 14</b>
<b>VI.</b>	Subject Classification, Educational psychology, Principles of subject classification.	<b>8 to 12</b>
<b>TOTAL</b>		<b>50</b>

**PRIMARY TEACHER / PRIMARY RAILWAY TEACHER**

Sl No.	Topics	No. of Questions
a.	<b>Understanding the Learner:</b> <ul style="list-style-type: none"> <li>• Concept of growth, maturation, and development, principles and debates of development, development tasks and challenges.</li> <li>• Domains of Development: Physical, Cognitive, Socio-emotional, Moral, etc., Deviations in development and its implications.</li> <li>• Understanding Adolescence: Needs, challenges, and implications for designing institutional support.</li> <li>• Role of Primary and Secondary Socialization Agencies. Ensuring Home school continuity.</li> </ul>	18 to 20
b.	<b>Understanding Teaching Learning:</b> <ul style="list-style-type: none"> <li>• Theoretical perspectives on Learning – Behaviorism, Cognitivism and Constructivism with special reference to their implications for: <ul style="list-style-type: none"> <li>▪ The role of the teacher</li> <li>▪ The role of the learner</li> <li>▪ Nature of teacher-student relationship</li> <li>▪ Choice of teaching methods</li> <li>▪ Classroom environment</li> <li>▪ Understanding of discipline, power, etc</li> </ul> </li> <li>• Factors affecting learning and their implications for: <ul style="list-style-type: none"> <li>▪ Designing classroom instructions</li> <li>▪ Planning student activities and</li> <li>▪ Creating learning spaces in school</li> </ul> </li> <li>• Planning and Organization of Teaching-Learning</li> <li>• Concept of Syllabus and Curriculum, Overt and Hidden Curriculum,</li> <li>• Foundational Literacy and Numeracy, Early Childhood care and Education</li> <li>• Competency-based Education, Experiential learning, etc.</li> <li>• Instructional Plans – Year Plan, Unit Plan, Lesson Plan</li> <li>• Instructional material and resources</li> <li>• Information and Communication Technology (ICT) for teaching-learning</li> <li>• Assessment of learning, for learning and as learning: Meaning, purpose, and considerations in planning each.</li> <li>• Enhancing Teaching-Learning processes: Classroom Observation, and Feedback, Reflections and Dialogues as a means of constructivist teaching.</li> </ul>	18 to 20
c.	<b>Creating a Conducive Learning Environment:</b> <ul style="list-style-type: none"> <li>• The concepts of diversity, disability and Inclusion, implications of disability as a social construct, types of disabilities-their identification and interventions</li> <li>• The concept of school mental health addressing the curative, preventive, and promotive dimensions of mental health for all students and staff, Provisioning for guidance and counseling.</li> <li>• Developing School and Community as a learning resource.</li> </ul>	4 to 6
d.	<b>School Organization and Leadership:</b> <ul style="list-style-type: none"> <li>• Leader as a reflective practitioner, team builder, initiator, coach, and mentor.</li> <li>• Perspectives on School Leadership – instructional, distributed, and transformative.</li> <li>• Vision building, goal setting, and creating a School Development Plan</li> <li>• 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 improving teaching-learning, school self-assessment and Improvement.</li> <li>• Creating partnerships with community, industry, and other neighboring schools and Higher Education Institutes-forming learning communities.,</li> </ul>	4 to 6
e.	<b>Perspectives in Education:</b> <ul style="list-style-type: none"> <li>• Role of school in achieving aims of education.</li> <li>• NEP-2020: Early Childhood Care and Education: The Foundation of Learning; Foundational Literacy and Numeracy; Curriculum and Pedagogy in Schools; Holistic &amp; Integrated Learning; Equitable and Inclusive Education: Learning for All; Competency-based Learning and Education.</li> <li>• 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.</li> <li>• Historically studying the National Policies in education with special reference to school education.</li> <li>• School Curriculum Principles: Perspective, Learning and Knowledge, Curricular Areas, School Stages- Pedagogy and Assessment.</li> </ul>	2 to 3
<b>TOTAL</b>		<b>50</b>



**PUBLIC PROSECUTOR**

Sl No.	Topics	No. of Questions
1.	<b>Legal Concepts</b> Person under law- Natural and legal personality- legal status of animals, unborn and dead person- corporate personality-corporate criminal liability- Concept of property- kinds of property and modes of acquisition- concept of ownership and possession- concept and kinds of rights- State- its essential elements and kinds of state.	3 to 4
2.	<b>Criminology and Penology</b> Crime causation factors- positive school of criminology- Lombroso, Enrico Ferri and Tarde- Crime and Sociology- Poverty and Crime- Differential Association Theory- White Collar Crimes- theories of punishment- reformatory and rehabilitative techniques- kinds of punishments under Indian Penal Code-Capital Punishment and its Constitutional validity- prison labour- parole.	3 to 4
3.	<b>General Principles of Crime</b> Crime and its definition- <i>actus res</i> - voluntary act- act caused in negligence- distinction between tort and crime- <i>mens rea</i> - its levels under Indian Penal Code- inchoate crimes- common intention- criminal conspiracy- criminal attempt- abetment.	3 to 4
4.	<b>General Exceptions under Bharatiya Nyay Sanhita</b> Chapter III of the Bharatiya Nyay Sanhita, 2023 - mistake of facts- judicial acts- accidents- acts of infancy and insanity- consent and duress – trifles- private defense- other excusable and justifiable acts- judicial interpretation of general exceptions.	5 to 7
5.	<b>Offences against Human Body</b> Culpable homicide and murder-causing death by negligence- dowry death and suicide- causing miscarriage- hurt and grievous hurt- acid attack- abduction- offences against modesty of a woman- rape and unnatural offences- Criminal Law Amendment 2013 and its implications- relevant special legislations on sexual abuse against children and sexual harassment of woman at workplace – judicial responses.	3 to 4
6.	<b>Offences against Property and Other Offences</b> Offence of theft, extortion, robbery and dacoity- criminal misappropriation of property- breach of trust-receiving stolen property- cheating- mischief- criminal trespass- forgery- perjury- offences affecting public nuisance- offences against State- offences against religion and marriage- obscenity.	5 to 7
7.	<b>Criminal Justice Administration</b> Purpose of criminal justice administration- classes of criminal courts and its jurisdiction in India-public prosecutors and their role- executive magistrates- organization of police and its powers- classification of offences- cognizable and non-cognizable- bailable and non-bailable- victim protection under Indian legal system- remedies of appeal, revision and inherent powers of high court- bail and anticipatory bail.	5 to 7
8.	<b>Principles of Evidence</b> Bharatiya Sakshya Adhiniyam, 2023 - Evidence- relevant facts- admissibility of evidence- concept of burden of proof- confession- confession to police officers- dying declarations- documentary evidence-evidentiary value of public documents- presumptions under evidence law- hearsay rule and exceptions- electronic evidence- expert evidence- identification of person- witnesses and examination of witness- rejection of evidence.	5 to 7
9.	<b>Constitutional Rights of the Accused and Arrested</b> Accusatorial and inquisitorial system in criminal process- concept of fair trial- fair trial as a constitutional right- socio-economic offences and shifting of burden of proof- rights of the accused person- right against self-incrimination- examination of the accused and victim under criminal procedure code- scientific test like narco analysis- constitutional validity- right against double jeopardy- constitutional and legal provisions- <i>ex post facto law</i> and criminal process- right to privacy and criminal process- right to be forgotten- prisoners rights- right to compensation for arbitrary arrest- preventive detention- free legal aid- legal services authorities.	5 to 7
10.	<b>Bharatiya Nagrik Suraksha Sanhita: Various sections.</b>	5 to 7
11.	<b>The Railway Protection Force Act, 1957; The Railway Act 1989 and Railway Property (Unlawful Possession) Act, 1966</b>	5 to 7
<b>Total</b>		<b>50</b>

**SCIENTIFIC SUPERVISOR (ERGONOMICS AND TRAINING)**

<b>Sl No.</b>	<b>Topics</b>	<b>No. of Questions</b>
<b>1.</b>	<b>Basic Psychological Processes</b>	<b>6 to 8</b>
	Sensation, Perception, Attention, Memory, Learning and Problem Solving, Emotion and Motivation, Nature of Human Abilities, Intelligence, Aptitude and Interest	
<b>2.</b>	<b>Bio-Physiological Processes</b>	<b>7 to 8</b>
	Central, Peripheral and Autonomic Nervous Systems, Localization of Brain Functions, Hemispheric Specificity, Nerve Impulse Conduction, Receptor System, Endocrine System (Role in Physical Growth, Emotional Activities and Personality), Sleep and Arousal	
<b>3.</b>	<b>Psychology of Personality</b>	<b>6 to 8</b>
	Concept of Personality, Development and Growth of Personality, Theories of Personality, Techniques of Measurement, Interpretation and Prediction	
<b>4.</b>	<b>Research Methodology</b>	<b>6 to 8</b>
	Research Methods, Research Design, Hypothesis, Sampling Techniques, Methods of Data Collection and Analysis, Interpretation of Data and Report Writing	
<b>5.</b>	<b>Test Construction</b>	<b>6 to 8</b>
	Definition of Psychological Tests, Types of Tests, Construction and Standardization of Psychological Tests, Estimation of Reliability and Validity, Development of Norms	
<b>6.</b>	<b>Statistical Method in Psychology</b>	<b>6 to 8</b>
	Scale of Measurement, Measures of Central Tendency and Variability, Standard Scores, Normalized Standard Score Distribution, Percentile Ranks, Normal Distribution, Areas Under Normal Curve, Significance of Differences, Correlation and Regression, Analysis of Variance, Hypothesis Testing, Reliability and Validity of Measurement, Test Scales and Norms	
<b>7.</b>	<b>Applied Psychology</b>	<b>7 to 8</b>
	Individual Differences and Measurement, Assessment of Personality, Psychological Disorders and Mental Health, Attitude, Psychology in Industry and Organization, Psychology in Clinical Settings	
<b>Total</b>		<b>50</b>

SCIETIFIC ASSISTANT/TRAINING

Sl No.	Topics	No. of Questions
1.	<b>Basic Psychological Processes</b>	7 to 8
	Sensation, Perception, Attention, Memory, Learning and Problem Solving, Emotion and Motivation, Nature of Human Abilities, Intelligence, Aptitude and Interest	
2.	<b>Psychology of Personality</b>	5 to 7
	Concept of Personality, Development and Growth of Personality, Theories of Personality, Techniques of Measurement, Interpretation and Prediction	
3.	<b>Counselling and Training</b>	6 to 8
	Principles of Counselling, Types of Counselling, Techniques of Counselling, Employee Counselling related to Motivation and Morale, Assessment of Training Needs	
4.	<b>Research Methodology</b>	6 to 8
	Research Methods, Research Design, Hypothesis, Sampling Techniques, Methods of Data Collection and Analysis, Interpretation of Data and Report Writing	
5.	<b>Test Construction</b>	6 to 8
	Definition of Psychological Tests, Types of Tests, Construction and Standardization of Psychological Tests, Estimation of Reliability and Validity, Development of Norms	
6.	<b>Statistical Method in Psychology</b>	6 to 8
	Scale of Measurement, Measures of Central Tendency and Variability, Standard Scores and Normalized Standard Score Distribution, Percentile Ranks, Normal Distribution, Areas Under Normal Curve, Significance of Differences, Correlation and Regression, Analysis of Variance, Hypothesis Testing, Reliability and Validity of Measurement, Test Scales and Norms	
7.	<b>Applied Psychology</b>	6 to 8
	Individual Differences and Measurement, Assessment of Personality, Psychological Disorders and Mental Health, Attitude, Psychology in Industry and Organization, Psychology in Clinical Settings	
Total		50