

Central Reserve Police Force



CRPF Assistant Commandant Exam Pattern

Name of the Subject	Number of Questions	Number of Marks
Paper I		
Intelligence Test and General Knowledge <ul style="list-style-type: none"> • General Intelligence • General Awareness • Reasoning • Numerical Ability • Current events • Matters of every day observation and experience 	100	100
Paper II		
Professional Skill <ul style="list-style-type: none"> • Civil Engineering 	100	100
Paper II		
Essay, Precis Writing and Comprehension	100	100
Total	300 Questions	300 Marks
Time Duration: 2 Hours (For Each Paper)		
Type of Exam: Multiple Choice Questions in English & Hindi		

Physical Standard Test & Physical Efficiency Test

Name of the Event	Male Candidates	Female Candidates
100 Meters Race	In 16 Seconds	In 18 Seconds
800 Meters Race	In 3 Minutes 45 Seconds	In 4 Minutes 45 Seconds
Long Jump	3.5 Meters (3 Chances)	3.0 Meters (3 Chances)
Shot Put (7.26 Kgs)	4.5 Meters (3 Chances)	Not applicable

Interview and Personality Test

Test Items	Maximum Marks
Physical Make up	10
General Intelligence Aptitude, interest and professional skill	30
Behavioral aspects and psychological	30
Any conspicuous achievements during service	5
International/ national sports/ All india police Games	5
Overall Assesment	20
Total	100 Marks

CRPF Assistant Commandant Syllabus Topics

General Intelligence

- Number Ranking
- Figurative Classification
- Classification
- Blood Relations
- Arrangements
- Arithmetical Reasoning
- Mathematical Operations
- Venn diagrams
- Number Series
- Figural Pattern
- Cubes and Dice
- Analogies
- Non-Verbal Series
- Coding-Decoding
- Logical Venn Diagrams
- Directions
- Number, Ranking & Time Sequence

General Awareness

- Functions of Banks
- Types of Banks
- Indian Banking Industry History
- RBI and its Monetary Policy
- Inflation
- National Income
- Public Finance
- Bills
- Finance Commissions
- Revenue of Central Government
- Economic Planning
- Taxes on Income and Expenditure
- Capital market in India
- Financial and Railway Budget
- Concept of Budget
- Schemes and Policies implemented by Government
- Money Market in India

- Role of Banking.

Numerical Ability

- Trigonometry
- Profit and Loss
- Simple and Compound Interest
- Surface area
- Data Sufficiency
- Pipes and Cisterns
- Number System – Fractions
- Decimals
- Permutation and Combinations
- Tabular Form
- Caselet Form
- Partnerships
- Quadratic Equations
- Speed, Distance, and Time
- Linear Equations
- Number theory
- LCM and HCF
- Sets and Venn Diagrams
- Simplification and Approximation
- <https://www.freshersnow.com/syllabus/>
- Ratio and Proportions
- Percentage
- Data Interpretation
- Surds, Indices, Exponents, and Powers
- Missing Data Interpretation
- Probability
- Radar/ Web
- Line Chart
- Pie Chart
- Stocks and shares
- Volumes

Reasoning

- Alphabet Series
- Venn Diagram
- Number Ranking

- Mirror Images
- Decision Making
- Grouping Identical Figures
- Problem on Age Calculation
- Figure Matrix Questions
- Inference
- Arithmetical Reasoning
- Analogy
- Non-Verbal Series
- Blood Relations
- Coding and Decoding
- Number Series
- Test of Direction Sense
- Arguments

English Language

- Transformation
- Joining Sentences
- Spotting Errors
- Error Correction
- Passage Completion
- Active and Passive Voice
- Substitution
- Prepositions
- Idioms and Phrases
- Synonyms and Antonyms
- Sentence Arrangement
- Sentence Improvement
- Fill in the blanks
- Substitution
- Spelling Test
- Para Completion

Civil Engineering

(a) Building Materials - (Timber, Brick, Cement, Cement Mortar, Concrete)- Stone, Lime, Glass, Plastics, Steel, FRP, Ceramics, Aluminum, Fly Ash, Basic Admixtures, Timber, Bricks, and Aggregates: Classification, properties, and selection criteria; Cement: Types, Composition, Properties, Uses, Specifications, and various Tests; Lime & Cement Mortars and Concrete:

Properties and various Tests; Design of Concrete Mixes: Proportioning of aggregates and methods of mix design.

(b) Solid Mechanics - Elastic constants, Stress, Plane stress, Strains, plane strain, Mohr's circle of stress and strain, Elastic theories of failure, Principal Stresses, Bending, Shear and Torsion.

(c) Structural Analysis - Basics of the strength of materials, Types of stresses and strains, Bending moments and shear force, concepts of bending and shear stresses; Analysis of determinate and indeterminate structures; Trusses, beams, plane frames; Rolling loads, Influence Lines, Unit load method & other methods; Free and Forced vibrations of single degree and multi-degree freedom system; Suspended Cables; Concepts and use of Computer-Aided Design.

(d) Design of Steel Structures - Principles of Working Stress methods, Design of tension and compression members, Design of beams and beam-column connections, built-up sections, Girders, Industrial roofs, Principles of Ultimate load design.

(e) Design of Concrete and Masonry Structures - Limit state design for bending, shear, axial compression, and combined forces; Design of beams, Slabs, Lintels, Foundations, Retaining walls, Tanks, Staircases: Principles of prestressed concrete design including materials and methods; Earthquake resistant design of structures; Design of Masonry Structure.

(f) Construction practice, planning, and management - Planning, Equipment, Site investigation and Management including Estimation with latest project management tools and network analysis for different Types of works; Analysis of Rates of various types of works; Tendering Process and Contract Management, Quality Control, Productivity, Operation Cost; Land acquisition; Labour safety and welfare.

(g) Fluid Mechanics, Open Channel Flow, Pipe Flow - Fluid properties; Dimensional Analysis and Modeling; Fluid dynamics including flow kinematics and measurements; Flow net; Viscosity, Boundary layer, and control, Drag, Lift, Principles in open channel flow, Flow controls, Hydraulic jump; Surges; Pipe networks.

(h) Hydraulic Machines and Hydropower - Various pumps, Air vessels, Hydraulic turbines - types, classifications & performance parameters; Powerhouse - classification and layout, storage, pondage, control of supply.

(i) Hydrology and design of hydraulic structure - Hydrological cycle, Ground Water Hydrology, Well hydrology and related data analysis; Streams and their gauging; River morphology; Flood, drought and their management; Capacity of Reservoirs.

(j) Water Resource Engineering - Ground and surface water resource, single and multipurpose projects, the storage capacity of reservoirs, reservoir losses, reservoir sedimentation.

(k) Water Supply Engineering – Sources, Estimation, quality standards and testing of water and their treatment, Rural, Institutional and industrial water supply; Physical, chemical and biological characteristics and sources of water, Pollutants in water and its effects, Estimation of water demand; Drinking water Standards, Water Treatment Plants, Water distribution networks.

(l) Wastewater Engineering - Planning & design of domestic wastewater, sewage collection, and disposal; Plumbing Systems. Components and layout of sewerage system; Planning & design of Domestic Waste-water disposal system; Sludge management including treatment, disposal, and re-use of treated effluents; Industrial waste waters and Effluent Treatment Plants including institutional and industrial sewage management.

(M) Solid waste management - Sources & classification of solid wastes along with planning & design of its management system, Disposal system, Beneficial aspects of wastes, and Utilization by Civil Engineers.

(N) Environmental Engineering and Green Building - Concepts & general methodology.

(O) Soil Mechanics - Soil exploration - planning & methods, Properties of soil, classification, various tests, and inter-relationships; Permeability & Seepage, Compressibility, consolidation and Shearing resistance, Earth pressure theories and stress distribution in soil; Properties and uses of Geo-synthetics. <https://www.freshersnow.com/syllabus/>

(P) Foundation Engineering - Type of foundations & selection criteria, bearing capacity, settlement analysis, design and testing of shallow & deep foundations; Slope stability analysis, Retaining embankments, Dams and Earth retaining structure: types, analysis, and design, Principles of ground modifications.

(Q) Surveying - Classification of surveys, various methodologies, instruments & analysis of measurement of distances, elevation, and directions; Field astronomy, Global Positioning System; Map preparation; Photogrammetry; Remote sensing concepts; Survey Layout for culverts, canals, bridges, road/railway alignment, and buildings, Setting out of Curves.

(R) Transportation Engineering - Highways - Planning & construction methodology, Alignment, and geometric design; Traffic Surveys and Controls; Principles of Flexible and Rigid pavements design. Tunneling - Alignment, methods of construction, disposal of muck, drainage, lighting, and ventilation. Railways Systems – Terminology, Planning, designs, and maintenance practices; track modernization. Harbors – Terminology, layouts, and planning. Airports – Layout, planning & design.

(S) Solar Energy and other types of renewable energy - Concepts & general methodology.

(T) Preparation of Layout plans & building drawings - (Plan, elevation, section)