

- Standard and Syllabus of the Examination:

Paper	Subject	Duration	No. of Questions	Marks
Paper I	Part 1- Reasoning	2 Hrs	50	50
	Part 2- Elementary Mathematics		50	50
Paper II	Part 1- General Knowledge	2 Hrs	50	50
	Part 2- English		50	50

Details Syllabus For Paper I & II

Paper I -:

(a) Part – 1: Reasoning

The question paper will be designed to test the candidate's ability to complete sequences making logical conclusions based on a simple pattern of numbers, statements, figures, letters, etc as may be expected of a rational thinking person without any special study of the subject.

(b) Part – 2: Elementary Mathematics

Arithmetic	Number System – natural numbers, integers, rational and real numbers. Fundamental Operations – Addition, subtraction, multiplication, division, square roots, decimal fraction.
Unitary Method	Time and distance, time and work, percentages, application to simple and compound interest, profit and loss, ratio and proportion, variation.
Elementary Number Theory	Division algorithm, prime and composite numbers. Tests of divisibility by 2, 3, 4, 5, 9 & 11. Multiples and factors, factorization theorem, HCF and LCM. Euclidean algorithm, logarithms to base 10, laws of logarithms, use of logarithmic tables.
Algebra	Basic operations, simple factors, remainder theorem, HCF, LCM, theory of polynomials, solutions of quadratic equations, relation between its roots and coefficients (only real roots to be considered). Simultaneous linear equations in two unknowns- analytical and graphical solutions. Simultaneous linear equations in two variables and their solutions. Practical problems leading to two simultaneous linear equations or in equations in two variables or quadratic equations in one variable and their solutions. Set language and set notation, rational expressions and conditional identities, laws of indices.

Territorial Army Officer Syllabus

Trigonometry	Sine x, cosine x, tangent x when $0^\circ < x < 90^\circ$. Values of sine x, cos x and tan x, for $x = 0^\circ, 30^\circ, 45^\circ, 60^\circ$ & 90° . Simple trigonometric identities. Use of trigonometric tables. Simple cases of heights and distances.
Geometry	Lines and angles, plane and plane figures theorems on Properties of angles at a point. Parallel lines. Sides and angles of a triangle. Congruence of triangles. Similar triangles. Concurrence of medians and altitudes. Properties of angles, sides and diagonals of a parallelogram, rectangle and square. Circle and its properties, including tangents and normal. Loci.
Mensuration	Areas of squares, rectangles, parallelograms, triangle and circle. Areas of figures which can bisect into the figures (field book). Surface area and volume of cuboids, lateral surface and volume of right circular area of cylinders. Surface area and volume of spheres.
Statistics	Collection and tabulation of statistical data, graphical representation-frequency polygons, bar charts, pie charts, etc. Measures of central tendency.

Paper II -:

(a) Part – 1: General Knowledge

General knowledge including knowledge of current events and such matters of everyday observation and experience in scientific aspects as may be expected of an educated person who has not made a special study of any scientific subject. The paper will also include questions on history of India and geography of nature which candidates should be able to answer without special study.

(b) Part – 2: English

The question paper will be designed to test the candidates' understanding of English and workman-like use of words. Questions in English are from synonyms, antonyms, reading comprehension, Para jumbles, error spotting, jumbled sentences, sentence correction and fill in the blanks.