"BASIC MATHS" ADMISSION TEST PROGRAM
The program for the preparation of the Maths admission test matches the program done during the levelling course.

FUNDAMENTAL NOTIONS:
Sets, elements, identity, inclusion, intersection, union, difference, empty set. Relations, applications or functions, domain, codomain. Numerical sets, intervals, upper and lower extreme. Natural, integer, related, rational, real, imaginary, complex numbers, powers, logs, logs properties, Bijective correspondence with the line.
EQUATIONS AND INEQUALITIES:
Fundamental concept and recalls of elementary algebra, recalls of analytical geometry, first and second degree equations and inequalities, exercises on the solution of second degree equations and inequalities and of systems of inequalities with analytical and graphic methods.
ANALITICAL GEOMETRY ELEMENTS:
Cartesian plane, line equation, bundles of lines, parallelism, orthogonality, and intersection of lines. Circumference, ellipse, hyperbola, and parabola. General equation of conics.
COORDINATES, TRIGONOMETRY:
Straight lines, polar coordinates, cartesian coordinates, distance between two points. Trigonometric circumference, trigonometric functions, addition and subtraction formulas, duplication and bisection formulas, transformation between Cartesian and polar coordinates.

Recommended texts for the preparation:
The three volumes of any Maths course of the last three years of secondary school (high schools and colleges).
UNI TEST, Matematica teoria + esercizi T14
Test simulation (available material is on UNITUS website)

CHEMISTRY ADMISSION TEST PROGRAMM
The program for the preparation of the Chemistry admission test matches the program done during the levelling course.

BASED CHEMISTRY:
Atoms and molecules. Metallic and non-metallic elements and their position in the periodic table. Ionic and molecular compounds. Chemistry symbols: chemistry symbols of the main elements and chemical formulas of compounds. Chemical equations and their qualitative and quantitative significance. The mole and the number of Avogadro.
PROPERTIES OF MATTER:
Chemical and physical properties. Intensive and extensive properties: examples. States of matter aggregation. State transitions.
ACIDS AND BASES IN SOLUTION:
Definition of acid and base: examples. Ionic product of water and pH definition.

Recommended texts for the preparation:
Secondary school Chemistry book
Hoepli Test, Manuale di Teoria ed Esercizi –Chimica. Cap 1, 2.1, 3.1, 3.2, 6.1, 9.1.1, 9.2
Test simulations (available material on the UNITUS website)