

Those who are attending the penultimate year of Secondary School (High School) upon the deadline of this Call for Admission cannot, under any circumstance, register for the admission test. Otherwise, they will be excluded from the contest procedures provided for in this Call for Admission and will not be entitled to a refund of any amount paid to the University.

Candidates who, on the date of the test, are in possession of a secondary school diploma obtained abroad after at least 12 years of schooling and accompanied by a Declaration of Value issued by



Candidates, who meet the requirements set out in Article 1, must submit their application exclusively online by connecting to the GOMP student portal, link <u>https://unicamillus-studenti.gomp.it/</u>, and carry out the enrolment procedure following the instructions provided in the "Guide for the submission of the admission application" published on the website.

Any candidate, wishing to register for the admission test before reaching the age of majority, must follow the procedure with the assistance of a person exercising parental authority.

During the registration phase, in addition to entering all the data required by the procedure, the upload of the privacy form will be allowed.



right to publish. The University declines any responsibility for failure to read the published notices and to fulfill all procedural obligations.

#### Article 3 Support for candidates with disabilities or specific disorders

Candidates with disabilities or with specific learning disabilities (SLD), in relation to the specific difficulties attested by medical certification, can make explicit request for aids and/or additional time compared to those established for the other candidates, as well as further measures to guarantee equal opportunities in carrying out the entry test. "Candidates with disabilities" shall



1.5 points for each correct answer;minus 0.25 points for each incorrect answer;0 points for each answer not given.

## Article 5 Conduct of UniCamillustests

The written test will be held remotely, i.e. in a home-based manner from a candidate's workstation and via a remote surveillance platform on <u>28<sup>th</sup> June 2024 and 5<sup>th</sup> July 2024</u>.

The University reserves the right to organise additional sessions and to change the dates, times, locations of the entrance test, dates of publication of results and test conduction methods, should it be necessary for organisational reasons and/or by ministerial provision, notifying all competitors by means of public notices on the University website.

In the event of a postponement, provided that it has been decided earlier than the deadline for applications for the admission test, the University reserves the right to postpone the deadlines for submitting applications and, if deemed appropriate, to amend the other dates set out in this Notice of Call accordingly.

If no message is received from <u>convocazioni@ilmiotest.it</u>, you should check that the message is not stored in your junk mailbox. Should it not be present in junk mail either, a report should be made to <u>convocazioni@ilmiotest.it</u> requesting a new email to be sent.

Candidates are required to check the level of quality and continuity of the IT connection at the location where they will take the test and, in any case, that of the surroundings in which the location is located.

Any malfunction of the IT connection occurring during the performance of the test and affecting its performance wholly or partially shall be the sole and exclusive responsibility of the candidate.

The candidate is therefore personally responsible for the quality and continuity of the connection with his/her workstation and the isolated room.

The committee may at any time order the exclusion of a candidate if any malfunction of the connection signal makes it impossible to control the private environment in which the test is being held.

From the third day before the start of the test sessions, all candidates will receive, from <u>convocazioni@ilmiotest.it</u> to the email address used when registering their personal data, the instructions for taking the test and the instructions to be followed to meet the technical requirements.



Candidates are obliged to observe any other instructions of a technical nature that may be imparted by the company running the test, in both the preparation phase and test-taking phases, paying particular attention to connection times to ensure punctuality and contextual conformity of the proceedings for each scheduled session.

By activating the video link, the candidate consents to the recording of images and to the recording of any other personal data enabling the reconstruction and tracking of what happened during the competition examination.

To take the test, the candidate must have:

a PC (operating system Windows 8, or later, or LINUX) or MAC (MAC-OS 10.14, or later) equipped with webcam and microphone and compulsory use of GOOGLE CHROME (min. version 81.0) as browser;



i) and j) by 3 pm on the second working day following the publication of the relevant notice;

the "sliding procedure" will be repeated until the available places indicated in this Article are filled.

The University reserves the right to change modalities and timing of enrolment, should it be



Outgoing transfer and the issuance of the relevant documentation may only be granted to students who, on the date of application, have paid all relevant academic contributions, fees and stamps.

In any case, a student who abandons studies after the start of classes is required to pay all the fees and contributions stipulated in the Fees and Contributions Regulations for the academic year in which he or she has enrolled, readily available on the University website at the following link <u>https://www.unicamillus.org/it/regulations/</u>.

#### Article 12 Warnings

Pursuant to prevailing legislation, the University reserves the right to verify the truthfulness of the declarations made by the candidate at any stage of the enrolment process. The candidate must therefore provide all the necessary elements to allow for the appropriate verifications. If false or



#### Annex A

# Schedules of questions for the admission tests to master's degree courses in Medicine and Surgery

#### Logic, problem-solving and reading comprehension

Assessment of the ability to use language correctly and to logically complete an argument in a manner consistent with the premises, which are stated in symbolic or verbal form through multiple-choice questions also formulated with short propositions, discarding erroneous, arbitrary or unlikely answers.

Analysis of cases or problems, also of an abstract nature, whose solution requires the adoption of different forms of logical reasoning.

## Biology

The Chemistry of living things.

The biological importance of weak interactions.

Organic molecules present in organisms and their functions. The role of enzymes.

The cell as the basis of life.

Cellular theory. The dimensions of cells. Prokaryotic and eukaryotic cells in animals and plants. Viruses.

The cell membrane: structure and functions – transport across the membrane.

Cellular structures and their specific functions.

Cell cycle and cell reproduction: mitosis and meiosis – chromosome kit and chromosome maps.

Bioenergetics.

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Mendelian genetics: Mendel's laws and their applications.

Classical genetics: chromosomal theory of inheritance – inheritance models.

Molecular genetics: structure and DNA duplication, the genetic code, protein synthesis. The DNA of prokaryotes. The structure of the eukaryotic chromosome. Genes and the regulation of gene expression.

Human genetics: transmission of mono- and polyfactorial characters; autosomal and X-chromosome-related inherited diseases.

Biotechnology: recombinant DNA technology and its applications.

Heredity and environment.

Mutations. Natural and artificial selection. Evolutionary theories. The genetic basis of evolution.

Anatomy and physiology of animals and humans.

Animal tissues.

Anatomy and physiology of systems and apparatuses in humans and their interactions.

Homeostasis.

#### Chemistry

The constitution of matter: states of aggregation of matter; heterogeneous and homogeneous systems; compounds and elements.

Laws of perfect gases.

The structure of the atom: elementary particles, atomic number and mass number, isotopes, electronic structure of the atoms of the various elements.

The periodic system of elements: groups and periods; transition elements. Periodic properties of the elements: atomic radius, ionisation potential, electronic affinity, metallic character. Relationships between electronic structure, position in the periodic system and properties of the elements.

The chemical bond: ionic bond, covalent bond and metallic bond. Binding energy. Bond polarity. Electronegativity. Intermolecular bonds.

Fundamentals of inorganic chemistry: nomenclature and main properties of inorganic compounds: oxides, hydroxides, acids, salts.



Chemical reactions and stoichiometry: atomic and molecular mass, Avogadro's number, the mole concept and its application, elementary stoichiometric calculations, balancing simple reactions, the different types of chemical reactions.

Solutions: solvent properties of water, solubility, the main ways of expressing the concentration of solutions.

Equilibrium in aqueous solution.

Elements of chemical kinetics and catalysis.

Oxidation and reduction: oxidation number, the concept of oxidant and reductant. Balancing simple reactions.

Acids and bases: the concept of acid and base. Acidity, neutrality and basicity of aqueous solutions. pH. Hydrolysis. Buffer solutions.

Fundamentals of organic chemistry: links between carbon atoms, crude and structural formulas, the concept of isomerism. Aliphatic and aromatic hydrocarbons. Functional groups: alcohols, ethers, amines, aldehydes, ketones, carboxylic acids, esters and amides. Elements of nomenclature.

## Physics

Measurements: direct and indirect measurements, fundamental and derived quantities, physical dimensions of quantities, knowledge of the decimal metric system and of the Systems of Units of Measure CGS, Technical or Practical (ST) and International (SI), of the units of measure (names and

Thermology, thermodynamics: thermometry and calorimetry. Specific heat, heat capacity. Mechanisms of heat propagation. Changes of state and latent heat. Laws of perfect gases. First and second principles of thermodynamics.

Electrostatics and electrodynamics: Coulomb's law. Electric field and potential. Dielectric constant. Capacitors. Capacitors in series and in parallel. Direct current. Ohm's law. Kirchhoff's principles. Electrical resistance and resistivity, series and parallel electrical resistances. Work, Power, Joule effect. Generators. Electromagnetic induction and alternating currents. Effects of electric currents (thermal, chemical and magnetic).

#### Mathematics

Number sets and algebra: natural, integer, rational, real numbers. Sorting and comparison; order of magnitude and scientific notation. Operations and their properties. Proportions and percentages. Powers with integer and rational exponents and their properties. Roots and their properties. Logarithms (in base 10 and base e) and their properties. Elements of combinatorial calculus. Algebraic expressions, polynomials. Remarkable products, nth power of a binomial, factor decomposition of polynomials. Algebraic fractions. First and second-degree algebraic equations and inequalities. Systems of equations.

Functions: fundamental notions about functions and their graphic representations (domain, codomain, sign, maximum and minimum, growth and decline, etc.). Elementary functions: whole and fractured algebraic, exponential, logarithmic, goniometric. Compound and inverse functions. Goniometric equations and inequalities.

Geometry: polygons and their properties. Circumference and circle. Measurements of lengths, surfaces and volumes. Isometries, similarities and equivalences in the plane. Geometric loci. Measures angles in degrees and radians. Sine, cosine and tangent of an angle and their notable values. Goniometric formulas. Resolution of triangles. Cartesian reference system in the plane. Distance between two points and midpoint of a segment. The straight line equation. Conditions of parallelism and perpendicularity. Distance of a point from a line. Equation of the circumference, parabola, hyperbola, ellipse and their representation in the Cartesian plane. Pythagoras' Theorem. Euclid's Theorems (first and second).

Probability and statistics: frequency distributions according to character type and main graphical representations. The notion of random experiment and event. Proba(n)-4(t)dnvtntations (domain,



related topics. Specialist knowledge of such topics is not required: basic knowledge from reading newspapers and other normal media that commonly give news on such topics will suffice. In other words, these questions will be aimed at revealing the candidates' degree of interest in the aforementioned topics, which, if such interests exist, will certainly have been the subject of personal reading and in-depth study, albeit of an informative and non-specialist nature. Similarly, there may be general knowledge questions intended to highlight a high level of social and humanistic awareness considered necessary for the elevated profile of health professionals trained by UniCamillus.