

## 15. SPECIAL CENTRE FOR MOLECULAR MEDICINE

The pattern of JNUEE 2022-23 will be based on Multiple Choice Questions (MCQs) through Computer Based Test (CBT)

Ph.D.

Sl. No.	Name of Centre	Sub. Code & Sub. Code Number	Syllabus for Entrance Examination
1	Special Centre for Molecular Medicine (SCMM)	Molecular Medicine- CMMH (905)	<p><b>Section A; General Aptitude/Research Methodology</b>  <b>Section B; Different Subject Areas of Molecular Medicine</b></p> <p style="text-align: center;"><b>Section A</b></p> <p><b>Aptitude / Research Methodology</b>  <b>Basic Maths;</b> geometry, statistics, Arithmetics, Log, Basic knowledge of Computer science.  <b>Chemistry:</b> Concept of Molarity, Normality, Related to Periodic Table, Organic Chemistry, Synthesis, Thermodynamics, Entropy, Enthalpy, Free energy, Law of Mass action, Reaction kinetics <b>Physics;</b> Newton's law, radioactivity, Electricity, capacitance, optics, sound, gravity, spectroscopy. <b>Basic Biology;</b> Zoology/Botany - classification/Evolution Biology/Population Biology, General Aptitude and reasoning.</p> <p style="text-align: center;"><b>Section B</b></p> <p><b>Biochemistry:</b> Metabolism, Nutrition, Biomolecules, Hormones, Enzymes, Omics.  <b>Microbiology:</b> Bacterial genetics, Antibiotics mode of action, Infectious disease, <b>Industrial Biotechnology.</b> <b>Physiology, Diseases, Pharmacology, Genetics, Molecular Biology, Developmental Biology, Zoology, Population genetics. Botany, Molecular Biology, Advanced Chemistry;</b> Spectroscopy, Molarity/Normality, Radioactivity, Atomic Structure, Acid base, pH. <b>Medicinal Chemistry:</b> Drug-receptor interaction, DNA, Protein, Hormones as receptor, Pharmacokinetics, G-protein coupled receptor, Pharmacodynamics. <b>Cell biology:</b> <b>Organelles, Cell-Cell interaction, Cell signalling/ trafficking, Cell cycle. Drug resistance. Immunology</b>  <b>Entrance test will contain questions on research methodology/experimental techniques in the relevant areas.</b></p>

## 16. CENTRE FOR THE STUDY OF LAW & GOVERNANCE

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Ph.D.

Sl. No.	Name of Centre	Sub. Code & Sub. Code Number	Syllabus for Entrance Examination
1	Centre for the Study of Law & Governance (CSL&G)	Law & Governance – CLGH (907)	<p>The test will have a 50% weight for social science research methods and 50% weight for domain knowledge covering the disciplines of Economics, Political Science, Sociology, Public Administration, Anthropology, and Law. The questions will be at the level of an advanced Masters and all candidates will be required to attempt questions from all these disciplines.</p> <p>The broad coverage of the subject areas of these disciplines are as follows:"</p> <ul style="list-style-type: none"> <li>• <b>Political Science:</b> concept and theories of governance; theories of the State,</li> </ul>