**M.Sc. Immunology**

**KAHER’s Dr. Prabhakar Kore Basic Science Research Center [BSRC]**

**J. N. Medical College, KLE Academy of Higher Education and Research, Belagavi**

**Duration: 2 years [4 Semesters]**

**Eligibility:**

Candidates must have B.Sc (Honors) in Physiology, Zoology, Biochemistry, Biotechnology, and Microbiology or in any branches of Biology, along with Chemistry as a Pass subject, from any recognized University.

**Proposed Intake of Students:** **20**

**Proposed Syllabus:**

**M.Sc. Immunology**

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| --- | --- | --- | --- | --- |
| **Semester I:****300 Marks** | **Semester II:****300 Marks** | **Semester III:****300 Marks** | **Semester IV:****300 Marks** | **Total Marks:** **1200**  |
| Theory | Practical | Theory | Practical | Theory | Practical | Theory | Practical | Theory | Practical |
| 160 | 140 | 160 | 140 | 160 | 140 | 160 | 140 | 640 | 560 |

**FIRST SEMESTER: 300 MARKS**

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| --- | --- | --- | --- | --- | --- |
| **Theory / Practical** | **Paper** | **Unit** | **Name** | **Marks** | **Lecture** |
| THEORY | Paper – IPaper – II | 01020304 | Basic Immunology Cell & Molecular Biology Stem Cell Immunology & Gene TherapyRecombinant DNA Technology & Tissue Culture | 40404040 | 30L33L21L20L |
| PRACTICAL (Research oriented experiments)  | Paper – III | 0506 | Basic Immunology, Cell & Molecular Biology. Stem Cell Immunology & Gene Therapy, Tissue Culture, Recombinant DNA Technology  | 7070 | 20L20L |

**SECOND SEMESTER: 300 MARKS**

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| **Theory / Practical** | **Paper** | **Unit** | **Name** | **Marks** | **Lecture** |
| THEORY | Paper – IVPaper – IV | 07080910 | Clinical Immunology & Immunohematology Infection & Immunity Basic & Clinical Biochemistry Genomics & Proteomics  | 40404040 | 26L24L 24L16L |
| PRACTICAL experiments)  | Paper – VI | 1112 | Clinical Immunology, Immuno-hematology and Infection & ImmunityBasic & Clinical Biochemistry, Genomics & Proteomics  | 7070 | 20L 20L  |

**THIRD SEMESTER: 300 MARKS**

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| **Theory / Practical** | **Paper** | **Unit** | **Name** | **Marks** | **Lecture** |
| THEORY | Paper – VIIPaper – VIII | 13141516 | Immuno-regulation & cytokines Advanced Immunology Immunological Technique & Methodology (Instrumentation) Review Paper  | 40404040 | 20L25L 24L24L |
| PRACTICAL  | Paper – IX | 1718 | Immuno-regulation & Cytokines and Advanced Immunology Enzymology and Instrumentation  | 7070 | 20L20L  |

**FOURTH SEMESTER: 300 MARKS**

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| **Theory / Practical** | **Paper** | **Unit** | **Name** | **Marks** | **Lecture** |
| THEORY | Paper – X  | 19 | Biostatistics & Computer Application in Biology | 40 | 20L  |
| Paper – XI | 20 | Immunological Disease Management  | 40 | 20L  |
| PRACTICAL | Paper – XII  | 21, 22 | Biostatistics and Computer Application | 80 | 20L |

Unit: 23,24 – 100 Marks: Project Work: Duration Six Months