

| 15 Days Intensive Crash Course for Cracking IIT-JAM, GAT-B and other Competitive National Level Exams Organized by Department of Biotechnology, VNSGU, Surat |                                               |                                      |                                                                                     |                                                                   |                                                                                                                                                              |                                                          |
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| Day                                                                                                                                                          |                                               | Teacher-In Charge                    | 09:00 a.m.-11:00 a.m.                                                               | 11 :00 noon -1: 00 p.m.                                           | 1: 30 p.m.-3:30 p.m.                                                                                                                                         | 3:30 p.m.- 5:30 p.m.                                     |
| 1                                                                                                                                                            | 4 <sup>th</sup> Dec,2023<br>Monday            | Dr. Mansi Mehta/<br>Dr. Rekha Gadhvi | <b>Inauguration</b>                                                                 | Dr. Gaurav Shah<br>Biotechnology: A Way to<br>Prosperity & Growth | Dr. Gopaljee Gopal<br>Genomic and cDNA library                                                                                                               | Dr. Naresh Butani<br>Basics of<br>Bioprocessing          |
| 2                                                                                                                                                            | Day 2<br>5 <sup>th</sup> Dec, 2023<br>Tuesday | Dr. Gayatri Chauhan                  | Mrs. Tanvi Tamakuwala<br>Methods in<br>Microbiology/Microbial<br>Growth & Nutrition | Dr. Mansi Mehta<br>Chromosomal Disorder/Cell<br>cycle             | Ms. Prachi Patel<br>Metabolic Pathways: Anaerobic<br>Respiration                                                                                             | Dr. Sanket Ray<br>Microscopy,<br>Centrifugation          |
| 3                                                                                                                                                            | 6 <sup>th</sup> Dec, 2023<br>Wednesday        | Dr. Gayatri Chauhan                  | Dr. Jay Bergi<br>Hypersensitivity                                                   | Dr. Rekha Gadhvi<br>Vectors                                       | Dr. Ruchi Desai<br>Cell structure                                                                                                                            | Dr. Anil Kumar Singh<br>Regulation of Gene<br>Expression |
| 4                                                                                                                                                            | 7 <sup>th</sup> Dec, 2023<br>Thursday         | Ms. Prachi Patel                     | <b>Assessment-I</b>                                                                 | Mr. Saddam Musani<br>Cell Organelles                              | Mr. Milan Patel<br>Transcription                                                                                                                             | Dr. Rajesh Patel<br>Research Tools                       |
| 5                                                                                                                                                            | 8 <sup>th</sup> Dec, 2023<br>Friday           | Ms. Prachi Patel                     | Dr. Arti Raval<br>EMP/Kreb's Cycle                                                  | Dr. Gayatri Solanki<br>Transposons                                | Dr. Paresh Parekh<br>Spectroscopy and<br>Chromatography                                                                                                      | Dr. Mayuri Rathod<br>Micropropagation                    |
| 6                                                                                                                                                            | 9 <sup>th</sup> Dec, 2023<br>Saturday         | Ms. Priyanka Rai                     | Dr. Ketki Gujarati<br>Basic Physics                                                 | Ms. Helly Shah<br>Experience Sharing/Cell<br>cell Communication   | Ms. Bhavika Mehta<br>Experience Sharing/Cell<br>Signalling                                                                                                   | Dr. Pooja Padhiyar<br>PCR and DNA<br>Sequencing          |
| 7                                                                                                                                                            | 10 <sup>th</sup> Dec, 2023<br>Sunday          | Dr. Mihir Sarang                     | Dr. Chirag Prajapati<br>Bioinformatics                                              | Dr. Mihir Sarang<br>Enzymology                                    | Dr. Bhikhu More<br>RNA interference                                                                                                                          | Dr. Bhavin Bhatt<br>Linkage &<br>Recombination           |
| 8                                                                                                                                                            | 11 <sup>th</sup> Dec, 2023<br>Monday          | Dr. Mihir Sarang                     | Dr. Smita Parekh<br>DNA Replication                                                 | Dr. Aparna Tailor<br>Mutation, Mutagenesis                        | Dr. Anjali Soni<br>Molecular Markers                                                                                                                         | <b>Assessment-II</b>                                     |
| 9                                                                                                                                                            | 12 <sup>th</sup> Dec, 2023<br>Tuesday         | Dr. Gayatri Chauhan                  | Dr. Ambika Arkatkar<br>Statistics                                                   | D. Sushma Ijardar<br>Physical Chemistry                           | Dr. Preeti Sharma<br>Animal Cell culture;<br>Cryopreservation, Media<br>composition and Growth<br>Condition, Anchorage and non-<br>Anchorage cell dependable | Dr. Darshan Marjadi<br>Fermentation                      |

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| 10 | 13 <sup>th</sup> Dec, 2023<br>Wednesday | Dr. Mihir Sarang                         | Dr. Ratna Trivedi<br>Microbial Ecology &<br>Interaction                            | Dr. Meghna Adhvaryu<br>Totipotency                              |                                            | Dr. Dipesh Bhatt<br>Photosynthesis-Light and Dark<br>Reaction        |                | Megha Mehta<br>Tips and Tricks to<br>crack exam                                                                    |
| 11 | 14 <sup>th</sup> Dec, 2023<br>Thursday  | Ms. Priyanka Rai                         | Dr. Kaushal Patel<br>Mathematical Based                                            | Dr. Anjali Soni<br>Translation                                  |                                            | Dr. Krispa Shah<br>Basic Immunology                                  |                | Dr. Preeti Parmar<br>Nitrogen Fixation                                                                             |
| 12 | 15 <sup>th</sup> Dec, 2023<br>Friday    | Dr. Mihir Sarang                         | Dr. Urjita Kawatkar<br>Biomolecules                                                | Dr. Jigna Desai<br>Animal cell culture and<br>media composition |                                            | Dr. Ambika<br>Arkatkar<br>Probability                                | Assessment-III | Dr. Farida<br>Minocheherhomji<br>Edible Vaccine                                                                    |
| 13 | 16 <sup>th</sup> Dec, 2023<br>Saturday  | Dr. Ambika Arkatkar                      | Dr. Sumita Dasgupta<br>Meritstem culture,Virus free<br>plant, Anther-ovary culture | Dr. Mansi<br>Mehta<br>Cell Cycle<br>& Check<br>points           | Dr. Rekha<br>Gadhvi<br>Practice of<br>MCQs | Dr. Hetal Mistry<br>DNA fingerprinting, Blotting<br>Techniques       |                | Dr. Nafisa Patel<br>Antibiotics                                                                                    |
| 14 | 17 <sup>th</sup> Dec, 2023<br>Sunday    | Mr. Saddam Musani                        | Dr. Nilesh Pandya<br>Electrophoresis/Horizontal<br>gene transfer                   | Dr. Swati Patel<br>pH, buffer                                   |                                            | Dr. Datasha Kanthariya<br>Mendelian Inheritance                      |                | Dr. Rajkumar B. K.<br>Transgenic Plants                                                                            |
| 15 | 18 <sup>th</sup> Dec, 2023<br>Monday    | Mansi Mehta/ Rekha<br>Gadhvi/Ruchi Desai | Exam Schedule (9 to 12)<br>Assessment-IV                                           | 12 to 1 Lunch -Break                                            |                                            | 1 to 3 30 pm<br>Discussion regarding paper and<br>Experience Sharing |                | Valedictory<br><br>Dr. Preeti Sharma<br>Primary & Secondary<br>Lymphoid Organ, B<br>and T cells and<br>Macrophages |

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| Day | Date                                                                                                                                                         | 09:00 a.m.-11:00 a.m.                                     | 11 :00 noon -1: 00 p.m.                                                                     | 1: 30 p.m.-3:30 p.m.                                                                                                       | 3:30 p.m.- 5:30 p.m.        |
| 1   | 4 <sup>th</sup> Dec,2023<br>Monday                                                                                                                           | Inauguration                                              | Biotechnology: A Way to Prosperity & Growth                                                 | Genomic and cDNA library                                                                                                   | Basics of Bioprocessing     |
| 2   | 5 <sup>th</sup> Dec, 2023<br>Tuesday                                                                                                                         | Methods in Microbiology/Microbial Growth & Nutrition      | Chromosomal Disorder/Cell cycle                                                             | Metabolic Pathways                                                                                                         | Microscopy, Centrifugation  |
| 3   | 6 <sup>th</sup> Dec, 2023<br>Wednesday                                                                                                                       | Hypersensitivity                                          | Vectors                                                                                     | Cell structure                                                                                                             | Transposons                 |
| 4   | 7 <sup>th</sup> Dec, 2023<br>Thursday                                                                                                                        | Immunology                                                | Cell Organelles                                                                             | Transcription                                                                                                              | Research Tools              |
| 5   | 8 <sup>th</sup> Dec, 2023<br>Friday                                                                                                                          | EMP/Kreb's Cycle                                          | Enzymology                                                                                  | Spectroscopy and Chromatography                                                                                            | Micropropagation            |
| 6   | 9 <sup>th</sup> Dec, 2023<br>Saturday                                                                                                                        | Basic Physics                                             | Experience Sharing/Cell cell Communication                                                  | Experience Sharing/Cell Signalling                                                                                         | PCR and DNA Sequencing      |
| 7   | 10 <sup>th</sup> Dec, 2023<br>Sunday                                                                                                                         | Bioinformatics                                            | Regulation of Gene Expression                                                               | RNA interference                                                                                                           | Plant Developmental Biology |
| 8   | 11 <sup>th</sup> Dec, 2023<br>Monday                                                                                                                         | DNA Replication                                           | Mutation, Mutagenesis                                                                       | Animal Cell culture; Cryopreservation, Media composition and Growth Condition, Anchorage and non Anchorage cell dependable | Exam Schedule               |
| 9   | 12 <sup>th</sup> Dec, 2023<br>Tuesday                                                                                                                        | Statistics                                                | Physical Chemistry                                                                          | Primary & Secondary Lymphoid Organ, B and T cells and Macrophages                                                          | Fermentation                |
| 10  | 13 <sup>th</sup> Dec, 2023<br>Wednesday                                                                                                                      | Microbial Ecology & Interaction                           | Totipotency                                                                                 | Photosynthesis-Light and Dark Reaction                                                                                     | Molecular Markers           |
| 11  | 14 <sup>th</sup> Dec, 2023<br>Thursday                                                                                                                       | Mathematical Based                                        | Protoplast Isolation, Fusion, hybrid, cybrid, Soma clones, Synthetic seed, Cryopreservation | Basic Immunology                                                                                                           | Nitrogen Fixation           |
| 12  | 15 <sup>th</sup> Dec, 2023<br>Friday                                                                                                                         | Biomolecules                                              | Animal cell culture and media composition                                                   | Probability                                                                                                                | Edible Vaccines             |
| 13  | 16 <sup>th</sup> Dec, 2023<br>Saturday                                                                                                                       | Meritstem culture, Virus free plant, Anther-ovary culture | Post Translation                                                                            | DNA fingerprinting, Blotting Techniques                                                                                    | Antibiotics                 |
| 14  | 17 <sup>th</sup> Dec, 2023<br>Sunday                                                                                                                         | Electrophoresis/Horizontal gene transfer                  | pH, buffer                                                                                  | Mendelian Inheritance                                                                                                      | Transgenic Plants           |
| 15  | 18 <sup>th</sup> Dec, 2023<br>Monday                                                                                                                         | Exam Schedule (9 to 12 noon)                              | 12 to 1 p.m. Lunch -Break                                                                   | 1 to 3: 30 pm                                                                                                              | Valedictory                 |

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|  |  |  |  | Discussion regarding paper and Experience<br>Sharing |  |
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