**Bachelor of Technology (Biotechnology Engineering)**

*SCHEME OF STUDIES/EXAMINATIONS*

**Semester – VII**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| S. No. | Course No. | Course Title | Teaching Schedule | | | | Allotment of Marks | | | | Duration of Exam  (Hrs.) |
| L | T | P | Hours/Week | Theory | Sessional | Practical | Total |
| 1 | BT-401N | Bioinformatics | 3 | 1 | 0 | 4 | 75 | 25 | 0 | 100 | 3 |
| 2 | BT-403N | Pharmaceutical Biotechnology | 3 | 1 | 0 | 4 | 75 | 25 | 0 | 100 | 3 |
| 3 |  | DEC -I\* | 3 | 1 | 0 | 4 | 75 | 25 | 0 | 100 | 3 |
| 4 |  | DEC -II\* | 3 | 1 | 0 | 4 | 75 | 25 | 0 | 100 | 3 |
| 5 | HS-401N | Entrepreneurship | 3 | 0 | 0 | 3 | 75 | 25 | 0 | 100 | 3 |
| 6 | BT-405N | Bioinformatics Lab | 0 | 0 | 4 | 4 | 0 | 40 | 60 | 100 | 3 |
| 7 | BT-407N | Seminar | 0 | 0 | 2 | 2 | 0 | 100 | 0 | 100 |  |
| 8 | BT-409N | Project-I\*\* | 0 | 0 | 8 | 8 | 0 | 100 | 100 | 200 | 3 |
| 9 | BT-411N | Industrial Training (Viva-Voce)\*\*\* | 0 | 0 | 2 | 2 |  | 40 | 60 | 100 |  |
|  |  | **Total** | **15** | **4** | **16** | **35** | **375** | **405** | **220** | **1000** |  |

*\* The students should select two Departmental Elective Courses (DEC) from the following list.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Course No.** | **DEC-I** | **Course No.** | **DEC-II** |
| BT-413N | Biosensor and Bioinstrumentation | BT-421N | Advanced Management Information System and Information Technology |
| BT-415N | Biochips and Microarray Technology | BT-423N | Behavioural Neuroscience |
| BT-417N | Nano-Biotechnology | BT-425N | Herbal Drug Technology |
| BT-419N | Stem Cell Technology | BT-427N | Human Genetics and Human Genome |

*\*\*The project should be initiated by the students in the beginning of VIIth semester and will be evaluated at the end of the semester on the basis of a presentation and report.*

*\*\*\*The performance of the student will be evaluated after the presentation delivered and the report submitted by the student related to Industrial training undertaken after VIth semester.*

**Bachelor of Technology (Biotechnology Engineering)**

*SCHEME OF STUDIES/EXAMINATIONS*

**Semester – VIII**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| S. No. | Course No. | Course Title | Teaching Schedule | | | | Allotment of Marks | | | | Duration of Exam  (Hrs.) |
| L | T | P | Hours/Week | Theory | Sessional | Practical | Total |
| 1 | BT-402N | Biocatalysis & Biotransformation | 3 | 1 | 0 | 4 | 75 | 25 | 0 | 100 | 3 |
| 2 |  | DEC -III\* | 3 | 1 | 0 | 4 | 75 | 25 | 0 | 100 | 3 |
| 3 |  | DEC -IV\* | 3 | 1 | 0 | 4 | 75 | 25 | 0 | 100 | 3 |
| 4 | BT-404N | Bioethics, IPR and Biosafety | 3 | 0 | 0 | 3 | 75 | 25 | 0 | 100 | 3 |
| 5 | BT-406N | Professional Practice & Communication Skills Lab | 0 | 0 | 2 | 2 | 0 | 40 | 60 | 100 | 3 |
| 6 | BT-408N | Advanced Techniques in Biotechnology Lab | 0 | 0 | 2 | 2 | 0 | 40 | 60 | 100 | 3 |
| 7 | BT-410N | Project-II | 0 | 0 | 16 | 16 | 0 | 100 | 100 | 200 | 3 |
|  |  | **Total** | **12** | **3** | **20** | **35** | **300** | **280** | **220** | **800** |  |
| 8 | BT-412N | General Proficiency\*\* |  |  |  |  |  | 100 | 0 | 100 | 0 |

\**The student should select two Departmental Elective Courses (DEC) from the following list.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Course No.** | **DEC-III** | **Course No.** | **DEC-IV** |
| BT-414N | Virology | BT-422N | Developmental Biology |
| BT-416N | Molecular Modeling and Drug Design | BT-424N | Protein Engineering |
| BT-418N | Cancer Biology | BT-426N | Biomaterial Technology |
| BT-420N | Plant Physiology and Biotechnology | BT-428N | Food Process Engineering |

*\*\*BT-412N is a mandatory course and student has to get passing marks in order to qualify for the award of degree but its marks will not be added in the grand total.*