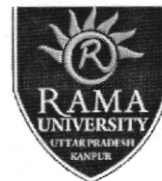


**Rama University Uttar Pradesh, Kanpur**  
**Department of Biotechnology, FET**



**Ref: RU/FOS / PG /BT/BOS/2020**

**Dated: 8.06.2020**

**Department of Biotechnology**  
**Minutes of Meeting**  
**Boards of Studies**

A meeting of Boards of Studies of M.Sc. Biotechnology, Department of Biotechnology, FET was held on 08/06/2020 (Monday) at 12:30 PM. in conference room of FOS. The following members were present:

- |                            |                   |                      |
|----------------------------|-------------------|----------------------|
| 1. Dr. Ajay Kumar          | - Chairperson     | <i>AS</i>            |
| 2. Dr. Vivek Srivastava    | - Member          | <i>hst</i>           |
| 3. Dr. Anand Kumar         | - Member          | <i>Anand Kumar</i>   |
| 4. Prof. (Dr.) Nand Lal    | - External Member | <i>N Lal</i>         |
| 5. Prof.(Dr.)Vinay Dwivedi | - External Member | <i>Vinay Dwivedi</i> |

**Agenda:**

**1. Action Taken Report (ATR) on Minutes of Previous Meeting.**

The BOS committee reviewed and confirmed the minutes of the BOS meeting held on 25/05/2019

**2. To consider and approve new Evaluation Scheme and Syllabus.**

S. No.	Item No.	Existing	Recommendation /Action Taken
1	To consider and approve the CBCS based Evaluation Scheme and Syllabus M.Sc. (Biotechnology) students to be admitted in the session 2020-21	The BOS reviewed existing Evaluation Scheme and Syllabus for M.Sc. (Biotechnology) for deciding CBCS based curriculum	The BOS considered suggestions for the Evaluation Scheme and Syllabus for said courses and thereafter discussion, recommended the same

Rama University Uttar Pradesh, Kanpur  
Department of Biotechnology, FET




(Chairperson)

Signature: 

Name : Prof (Dr.) Ajay Kumar

Date :

Internal Members

Signature: 1. 

Name: Dr. Vivek Srivastava

Date:

Signature: 2. 

Name: Dr. Anand Kumar

External Members

Signature: 1. 

Name: Prof. (Dr.) Nand Lal

Date:

Signature: 2. 

Name: Prof. (Dr.) Vinay Dwivedi

*Encl.: Recommended Curricula attached for consideration and approval.*

CC:

1. Dean
2. Registrar Office



## M.Sc. Biotechnology

### PROGRAM EDUCATIONAL OBJECTIVES (PEO)

**PEO 1:** To develop strong student competencies in biotechnology and its applications in a technology-rich, interactive environment.

**PEO 2:** To develop strong student skills in research, analysis and interpretation of problems and information relevant to modern biology.

**PEO 3:** To prepare the students to successfully compete for employment in biotech-based inquiry and development sectors, industrial sectors and teaching, and to provide a broad scope of experience in research methods, data analysis to match the industrial demands.

**PEO 4:** The aim of this class is to offer detailed knowledge of techniques applied in biological research and industries.

**PEO 5:** Understanding biotechniques is essential to strengthen the knowledge of the candidate desired to operate in the area of biotechnological research, development and fabrication.

**PEO 6:** Learning biotechniques is important for students of all fields of life sciences.

### PROGRAMME OUTCOMES (PO)

**PO1:** Possess the modern molecular Biological and Technical knowledge needed to support Biotechnology research activities.

**PO 2:** Demonstrate their ability to function effectively in teams.

**PO3:** Study the use of living organisms and Bioprocess in genetic engineering, Medicine, Agriculture and results in all kinds of Bio products from GMO food to carry out Gene therapy to Auto Immune Disease.

**PO 4:** They also explore Bioinformatics in the discipline of Molecular Biology.

**PO 5:** Bioinformatics methods are widely used for Gene Mapping, DNA analysis and Protein Samples. Biotechnology and Bioinformatics do a great favour to evolutionary biology and offer new vistas for Drug design and discovery.

**PO 6:** Students gain sound professional Ethics, Leadership and consensus building skills relevant to Biotechnology aspects of business endeavor.

**PO 7:** Students become an excellent researcher or Scientist or Teacher in Biotechnology field to discover unique products for societal needs with proper Ethical statute.

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Arjun

Nal

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**PO 8:** Apply knowledge and science in the conception and development of solutions for problems relevant to advanced biology to provide the needs of biotech industries.

**PO 9:** Become professionally trained in the field of molecular biology, recombinant DNA engineering, microbial technology, animal and plant tissue culture, Bioinformatics etc.

**PO 10:** Excel in the research related to biotechnology and quality control of biologicals.

**PO 11:** Demonstrate highest standards of critical, interpersonal and communication skills as easily as a dedication to lifelong learning.

### **PROGRAMME SPECIFIC OUTCOMES (PSO)**

**PSO1:** Demonstrate their ability to apply Biotechnological research strategies to solve the Global Environmental Problems like Climate change, Ozone Depletion, Acid Rain, Industrial waste etc.

**PSO 2:** Exhibit their knowledge on Industrial regulations and Environmental safety principles in biotechnology industries.

**PSO 3:** Work collaboratively on projects involving typical business timeline.

**PSO 4:** Integrate the basic principles of analytical techniques for the implementation of such technique to facilitate the development of Bio Pharma products viz. Drugs, Antibiotics, Hormones, Vaccines.

**PSO 5:** Familiar with the principles underlying the relevant compounds and their clinical relevance.

**PSO 6:** Expert in using online database understanding, creation and testing of scientific hypothesis and critical evaluation of experimental data.

*AS*

*Anand Kumar*

*Manoj*

*V. D. Singh*

[Approved by Academic Council in its meeting dated / / 2014 and by  
Executive Council in its meeting dated / /2014]

# RAMA UNIVERSITY

## **Ordinances for**

### **Master of Science in Biotechnology**

# RAMA UNIVERSITY, KANPUR

Ordinances for

## Master of Science in Biotechnology

[Approved by Academic Council in its meeting dated / /2014 and by

Executive Council in its meeting dated / /2014]

### 1. Admission

- 1.1. Admission to M.Sc. Biotechnology First year in I<sup>st</sup> semester will be made as per the rules prescribed by the Academic Council of the Rama University, Kanpur.
- 1.2. Admission on migration of a candidate from any other University to the University is permitted.

### 2. Eligibility for Admissions:

#### 2.1. Admission to M.Sc. Biotechnology First Year:

Candidates who have passed B.Sc. Biotechnology/Biosciences/Agricultural are eligible for admission to first year of 2 year M.Sc. Biotechnology. Courses offered by Faculty Sciences affiliated to Rama University, Kanpur.

### 3. Attendance

- 3.1 Every student is required to attend all the lectures, tutorials, practicals and other prescribed curricular and co-curricular activities. The attendance can be condoned up to 25% on medical grounds or for other genuine reasons beyond the control of students.
- 3.2 A further relaxation of attendance up to 15% for a student can be given by Dean provided that he/she has been absent with prior permission of the Head of Department for the reasons acceptable to him.
- 3.3 No student will be allowed to appear in the end semester examination if he / she do not satisfy the overall average attendance requirements of Clause Nos. 3.1, and 3.2. and such candidate(s) shall be treated as having failed and will be further governed by clause no. 4.1 & 4.2.



3.4 The attendance shall be counted from the date of admission in the college or start of academic session whichever is later.

#### 4. Duration of Courses

4.1 Total duration of the M.Sc. Biotechnology Course shall be 2 years, each year comprising of four semesters. Each semester shall normally have teaching for the 90 working days or as prescribed by UGC from time to time.

4.2 A candidate, who has failed twice in first year due to any reason (either due to his/her non-appearance or he/she being not permitted to appear in semester examinations) shall not be allowed to continue his/her studies further subject to clause 9.

#### 5. Curriculum:

5.1 The 2 years curriculum has been divided into 4 semesters and shall include lectures, tutorials, practicals, seminars and projects etc. in addition to industrial training and educational tour etc. as defined in the scheme and executive instructions issued by the University from time to time.

5.2 The curriculum will also include such other curricular, co-curricular and extra- curricular activities as may be prescribed by the University from time to time.

#### 6. Examination:

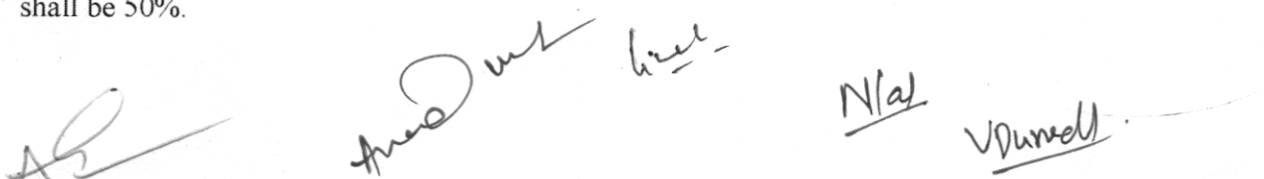
6.1 The performance of a student in a semester shall be evaluated through continuous evaluation and end semester examination. The continuous evaluation shall be based on Mid Term Examination, assignments/tutorials, quizzes/viva-voce and attendance. The marks for continuous evaluation (Sessional marks) shall be awarded at the end of the semester. The end semester examination shall be comprised of written papers, practicals and viva-voce, inspection of certified course work in classes and laboratories, project work, design reports or by means of any combination of these methods.

6.2 The distribution of marks for sessional, end semester theory papers, practicals and other examinations, seminar, project, industrial training shall be as prescribed.

6.3 The marks obtained in a subject shall consist of marks allotted in end semester theory paper, practical examination and sessional work.

6.4 The minimum pass marks in each theory subject (including sessional marks) shall be 40% with a minimum of 30% marks in each theory paper in the end semester examination. If there is no provision of sessional marks in any subject, the minimum pass marks in that subject shall be 30% in the end semester examination.

6.5 The minimum pass marks in a project/practical subject (including sessional marks if any) shall be 50%.

Handwritten signatures and initials at the bottom of the page. From left to right: a signature that appears to be 'A.S.', a signature that appears to be 'Anand Kumar', the initials 'N/A', and a signature that appears to be 'V. D. D. D.'.

6.6 A candidate, in order to pass, must secure 50% marks in the aggregate in a particular academic year inclusive of both semesters of the academic year subjected to conditions as clause 8.2(a).

6.7 The minimum pass marks in Seminar, Industrial Training and Educational Tour, Viva-Voice etc shall be 50%.

## 7. Promotion:

7.1 A candidate satisfying all the requirements under clause 7 shall be promoted to the next academic year of study.

7.2. (a) A candidate shall be eligible for provisional promotion to the next academic year of study provided :

(i) He/she fails to satisfy the requirements of clause 6.4, 6.5 and 6.7 in not more than 6 theory subject and 2 practical/ project subjects on the basis of combined result of both semester examinations of a particular academic year.

(ii) He/she fails to satisfy the requirements of clause 6.4, 6.5 and 6.7 (theory and/or practical/ project subjects) in not more than 5 theory subjects and 2 practical/project subjects in addition he/she fails to satisfy requirement of clause 6.6 (aggregate marks) in the combined result of both semester examinations of a particular academic year. In such a case aggregate marks shall be treated as one theory subject.

(b) If a candidate satisfies the requirement of clauses 6.4, 6.5 & 6.7 but fails to satisfy the requirement of clause 6.6, he/she shall be eligible for provisional promotion with carry over. He/she may choose up to a maximum of any four theory papers of that particular academic year as per his/her choice to pass the examination of that year.

7.3 A candidate shall not be promoted to third year unless he/she passes all the subjects of first year. Similarly, a candidate shall not be promoted to fourth year unless he/she passes all the examinations of second year.

7.4 All other candidates who do not satisfy conditions laid down in clause 7 shall be declared fail and shall be required to repeat the whole academic year after taking re- admission. This facility is, however, subject to the time limits stipulated in clause-4.

## 8. Carryover System:

8.1(a) A candidate who satisfies the requirements of clause 7.2 (a) will be required to appear in those theory papers / practicals in which he/she failed. However, a candidate of first year will be allowed to appear in the second semester examination in those theory/ practical subjects in which he/she failed in the first





semester examination, provided examination of those theory/practical subjects are held in second semester.

- (b) A candidate satisfying clause 7.2 (b) shall be required to exercise his/her choice up to a maximum of five theory papers in which he/she desires to appear in the examination to fulfill the requirements of clause 6.6. He/she shall inform the college about his/her choice within 15 days after the start of new session.

8.2 The highest marks secured in any subject in various attempts (end semester and carryover examinations) shall be considered.

### **9. Ex-studentship:**

9.1A candidate opting for ex-studentship shall be required to appear in all the theory & practical subjects in the end semester examinations of both semesters of the same academic year. However, the marks pertaining to Sessional, Industrial Training, and Seminar shall remain the same as those secured earlier.

9.2A candidate opting for ex-studentship shall be required to apply to the faculty of Sciences by paying only examination fee within 15 days from the start of new session.

### **10. Re-admission:**

A candidate may be allowed for re-admission provided he/she satisfies one of the following conditions:

10.1 A candidate is declared fail.

10.2 A candidate did not appear in a semester examination / or he/she was not granted permission to appear in the examination.

10.3 A candidate has been detained by the department and subsequently has been permitted to take re-admission.

10.4 A candidate as an ex-student passed the examination of the academic year or qualified for carryover system.

10.5 A candidate promoted with carry over subjects and he/she opted for re- admission.

### **11. Results:**

11.1 The result of a candidate shall be declared on the basis of performance of both semesters of the same academic year. However, a final year student, who is not permitted in any one of the final year semester examinations due to shortage of attendance, will be permitted in that particular semester of the next academic session to study as a regular student and appear at that semester examination.



**12. Award of Division:** The division shall be awarded on the basis of final year result.

**12.1 Calculation of Grade Point and Grade Point Average**

Relative grading shall be adopted at the Faculty of Engineering & Technology, Rama University. The list of letter grades, the grade points associated with them are given below:

Grade	Grade Point
A <sup>+</sup>	10
A	9
B	8
C	7
D	6
E	5
F	4

In order to arrive at alphabet grades, the total marks in a particular course for all the students pursuing the course are tabulated in the descending order (equivalently a histogram).

The performance of the course is analyzed in terms of the highest, lowest and the average marks and the dividing lines between the clusters of students. Gaps and dips between the clusters and the nature of the clusters guide in drawing the dividing lines between the grades. In a normal class of large size, the C grade usually covers the average performance. This is, however not a hard and fast rule and exceptions may arise in case of small classes, skewed histogram etc. Borderline cases may be considered individually on the basis of regularity and the attendance, class room discussions, progressive good performance throughout the semester, etc.

**12.2 Calculation System of Semester Grade Point Average:**

- Computation of the Semester Grade Point Average (SGPA) and Cumulative Performance Index (CPI):

The SGPA is an indicator of the overall academic performance of a student in all the courses he/she has registered during a given semester. It is computed as follows: If the grades awarded to a student are  $G_1, G_2$  etc in courses with corresponding credits  $C_1, C_2$  etc, the SGPA is given by:

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$$SGPA = \frac{C_1 \times G_1 + C_2 \times G_2 + \dots + C_n \times G_n}{C_1 + C_2 + \dots + C_n}$$

- The CPI indicates the overall academic performance of a student in all the courses registered up to and including the latest completed semester/summer term. It is computed in the same manner as the SGPA, considering all the courses (say, n) and is given by:

$$CPI = \frac{\sum_{i=1}^n C_i \times G_i}{\sum_{i=1}^n C_i}$$

- Percentage conversion of CPI :

$$\text{Percentage of marks} = CPI \times 10$$

- Students should get a minimum grade E in each subject with 5CPI to clear the semester.
- CPI conversion

$\geq 8$ CPI	<b>I<sup>st</sup> division with honours</b>
$\geq 6$ CPI	<b>I<sup>st</sup> division</b>
$\geq 5$ CPI	<b>II<sup>nd</sup> division</b>
$< 5$ CPI	<b>Fail</b>

12.3 If a candidate passes all examinations in first attempt without grace and secures 8CPI or more marks, he/she shall be placed in **FIRST DIVISION WITH HONOURS** and the candidates at first two top positions amongst First Div. with Honours only will be awarded medals viz. Gold and Silver respectively in order of merit.

### 13. Award of Rank:

On the basis of final year result, the top ten candidates in each branch shall be awarded rank according to their merit provided they pass all the examinations in first attempt.

### 14. Grace Marks:

14.1 A candidate may be awarded grace marks up to a maximum of total 10 marks, in maximum three subjects but not more than four marks in any subject including theory papers, practicals, project, seminar, industrial training and/ or aggregate marks in each academic year provided he/she can be declared to have passed the academic year by the award of these marks.

14.2 The grace marks shall not be added to the aggregate marks.

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## 15. Scrutiny and Revaluation:

15.1 Scrutiny shall be allowed in three theory papers.

15.2 Revaluation of theory/practical papers is not permitted.

## 16. Unfair means:

Cases of unfair means shall be dealt as per the rules of the University and The U.P. Public Examination (Prevention of Unfair means) Act if any in prevalence.

## 17. Award of Sessional Marks:

Sessional marks for theory subjects, practicals and project shall be awarded as will be prescribed and at present the break-up of sessional marks shall be as follows:

### Evaluation Scheme:

- **Course without practical components**

For Continuous Evaluation (CE) is such as: 20 Marks

1. Attendance: 5 Marks
2. Assignments/Quiz / Seminar/Term paper /Project :15Marks

MTE - Mid Term Examination: 20 Marks

- a. First Mid Term Examination: 10 marks
- b. Second Mid Term Examination: 10 marks

ETE - End Term Examination: 60 Marks

- **Course with practical components only**

For Continuous Evaluation (CE) is such as: 30 Marks

Conduct / Perform/Execution /Practical File/ Viva-Voice

MTE - Mid Term Examination: 20 Marks

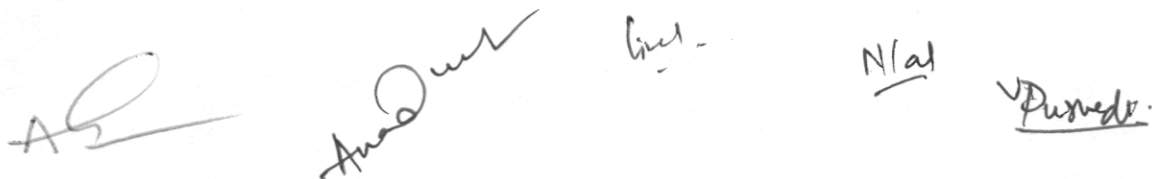
- a. First Mid Term Examination: 10 marks
- b. Second Mid Term Examination: 10 marks

ETE - End Term Examination: 50 Marks

Make-up test may be held only for those students who could not appear in any one of mid-term class tests due to genuine reasons for which the prior permission from the Head of Department was taken. Make up test shall ordinarily be held about two weeks before the semester examination. The syllabus for the make-up test shall be the whole syllabus covered by the subject teacher upto that time.

## 18. Award of Seminar, Industrial Training, Educational Tour Marks at Department level:

18.1 The marks of Seminar, Major project shall be awarded on the following basis:

The block contains five handwritten signatures or initials in black ink. From left to right: a large, stylized signature; a signature that appears to be 'Anand'; a signature that appears to be 'Gird'; the initials 'N/al'; and a signature that appears to be 'Purvede'.

<b>Criteria</b>	<b>Internal</b>	<b>External</b>	<b>Total</b>
Project Report	200	50	250
Viva Voce	100	50	150
<b>Total</b>	<b>300</b>	<b>100</b>	<b>400</b>

18.2 The marks in Seminar, Industrial Training and Educational Tour shall be awarded by a committee consisting of following members:

- (i) Head of the Department or his/her nominee.
- (ii) Concerned Officer – Incharge.
- (iii) Senior Faculty Member of the department nominated by the Head of Department.

**19. Cancellation of Admission:**

The admission of a student at any stage of study shall be cancelled if:

- (i) He / She is not found qualified as per UGC/AICTE / State Government norms and guidelines or the eligibility criteria prescribed by the University.

or

- (ii) He / She is found unable to complete the course within the stipulated time as prescribed in clause 4.2

or

- (iii) He / She are found involved in creating indiscipline in the Faculty of Sciences or in the University.

20. The Academic Council shall have the power to relax any provision provided in the ordinance in any specific matter/situation subject to the approval of Executive Council of the University & such decision(s) shall be reported to the Chancellor of the University.

*AB*      *Anand*      *Govind*      *Nal*      *Vijay*



# **COURSE STRUCTURE**

**M. Sc**

**BIOTECHNOLOGY**

**Under**

**Choice Based Credit System (CBCS)**



**First Semester**

S. NO	CODE	SUBJECT	CORE/ELECTIVES	Teaching Scheme			Evaluation Scheme			Total Marks	Credits
				L	T	P	CA	MTE	ETE		
1	MSGE 101	Advanced Biostatistics	Generic Elective	4	0	0	20	20	60	100	4
2	MSBT 101	Biochemistry	Core	4	0	0	20	20	60	100	4
3	MSBT 102	Cell Biology	Core	4	0	0	20	20	60	100	4
4	MSBT 103	Bioinformatics	Core	4	0	0	20	20	60	100	4
5	MSBT 104	Biophysical Techniques	Core	4	0	0	20	20	60	100	4
<b>PRACTICALS</b>											
6.	MSBT 151	Biochemistry Lab	Core	0	0	4	30	20	50	100	2
7.	MSBT 152	Bioinformatics Lab	Core	0	0	4	30	20	50	100	2
8.	MSBT 153	Cell Biology Lab	Core	0	0	4	30	20	50	100	2
			<b>TOTAL</b>	<b>20</b>	<b>0</b>	<b>12</b>	<b>190</b>	<b>160</b>	<b>450</b>	<b>800</b>	<b>26</b>

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*And...*

*Nlal*

*V. Dinesh*



**Convener**

Signature: ..... 

Name : Prof (Dr.) Ajay Kumar

Date :

**Internal Members**

Signature: 1.....

Name: Dr. Vivek Srivastava

Date:

2..... 

Dr. Anand Kumar

**External Members**

Signature: 1..... 

Name: Prof. (Dr.) Nand Lal

Date:

2..... 

Prof.(Dr.)Vinay Dwivedi





**Second Semester**

S. NO	CODE	SUBJECT	CORE/ELECTIVES	Teaching Scheme			Evaluation Scheme			Total Marks	Credits
				L	T	P	CA	L	T		
1.	MSBT 201	Microbiology	Core	4	0	0	20	20	60	100	4
2.	MSBT 202	Immunology	Core	4	0	0	20	20	60	100	4
3.	MSBT 203	Genetics & Molecular Biology	Core	4	0	0	20	20	60	100	4
4.	MSBT 204	Environmental Biotechnology	Core	4	0	0	20	20	60	100	4
5.	MSGE 201	IPR, Patent, Trademarks & Bioethics	Generic Elective	4	0	0	20	20	60	100	4
<b>PRACTICALS</b>											
6.	MSBT 251	Microbiology Lab	Core	0	0	4	30	20	50	100	2
7.	MSBT 252	Immunology Lab	Core	0	0	4	30	20	50	100	2
8.	MSBT 253	Genetics and Molecular Biology Lab	Core	0	0	4	30	20	50	100	2
			<b>TOTAL</b>	<b>20</b>	<b>0</b>	<b>12</b>	<b>190</b>	<b>160</b>	<b>450</b>	<b>800</b>	<b>26</b>

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*[Handwritten signature]*

*[Handwritten signature]*



**Convener**

Signature:  .....

Name : Prof (Dr.) Ajay Kumar

Date :

**Internal Members**

Signature: 1.....

Name: Dr. Vivek Srivastava

Date:

2..... 

Dr. Anand Kumar

**External Members**

Signature: 1..... 

Name: Prof. (Dr.) Nand Lal

Date:

2..... 

Prof. (Dr.) Vinay Dwivedi



**Third Semester**

S. NO	CODE	SUBJECT	CORE/ELECTIVES	Teaching Scheme			Evaluation Scheme			Total Marks	Credits
				L	T	P	CA	MTE	ETE		
1.	MSBT 301	Plant Biotechnology	Core	4	0	0	20	20	60	100	4
2.	MSBT 302	Animal Biotechnology	Core	4	0	0	20	20	60	100	4
3.	MSBT 303	Bioprocess Engineering & Fermentation Technology	Core	4	0	0	20	20	60	100	4
4.	MSBT 304	RDT, Genomics & Proteomics	Core	4	0	0	20	20	60	100	4
<b>THEORY (Select any One)</b>											
5.	MSGE 301	Nanobiotechnology	Generic Elective	4	0	0	20	20	60	100	4
6.	MSGE 302	Enzyme Technology	Generic Elective	4	0	0	20	20	60	100	4
7.	MSGE 303	Clinical Immunology	Generic Elective	4	0	0	20	20	60	100	4
<b>PRACTICALS</b>											
8.	MSBT 351	Plant Biotechnology Lab	Core	0	0	4	30	20	50	100	

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9.	MSBT 352	Animal Biotechnology, RDT and Genomics & Proteomics Lab	Core	0	0	4	30	20	50	100		2
<b>PRACTICALS (Select any One)</b>												
10.	MSGE 351	Nanobiotechnology Lab	Elective	0	0	4	30	20	50	100		2
11.	MSGE 352	Enzyme Technology Lab	Elective	0	0	4	30	20	50	100		2
12.	MS3E 353	Clinical Immunology Lab	Elective	0	0	4	30	20	50	100		2
			<b>TOTAL</b>	<b>20</b>	<b>0</b>	<b>12</b>	<b>190</b>	<b>160</b>	<b>450</b>	<b>800</b>		<b>26</b>

Convener

Signature: 

Name : Prof (Dr.) Ajay Kumar

Date :



**Internal Members**

Signature: 1 .....

Name: Dr. Vivek Srivastava

Date:

2 ..... *Anand Kumar*

Name: Dr. Anand Kumar

**External Members**

Signature: 1 ..... *Nlal*

Name: Prof. (Dr.) Nand Lal

Date:

2 ..... *V Dwivedi*

Name: Prof. (Dr.) Vinay Dwivedi



### Fourth Semester

S. NO.	CODE	SUBJECT	TEACHING SCHEME			EVALUATION SCHEME			TOTAL MARKS	CREDITS	CONTACTS HRS/WK
			L	T	P	CA	MTE	ETE			
<b>PRACTICALS</b>											
1.	MSBT 0971	Project Work	0	0	24	00	200	300	500	20	24
		<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>00</b>	<b>200</b>	<b>300</b>	<b>500</b>	<b>20</b>	<b>24</b>

S. No.	Category	Subject	Credit	Total Credits
1.	Core (Theory)	12	4	48
2.	Core (Practical)	8	2	16
3.	Generic Electives (Theory)	3	4	12
4.	Generic Electives (Practical)	1	2	2
5.	Project	1	20	20
6.	Total Credits			98

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*V. Divedi*



**Convener**

Signature: .....

Name : Prof (Dr.) Ajay Kumar

Date :

**Internal Members**

Signature: 1.....

Name: Dr. Vivek Srivastava

Date:

2.....

Dr. Anand Kumar

**External Members**

Signature: 1.....

Name: Prof. (Dr.) Nand Lal

Date:

2.....

Prof.(Dr.)Vinay Dwivedi