

MSc BIOTECHNOLOGY (Re-Revised CBCS)

THEORY QUESTION PAPER PATTERN

Instructions to candidate: Write neat labeled diagram wherever necessary

Max. Marks = 70

Time: 03 hours

PART A

Answer in Brief

5x 2 = 10

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

PART B

Write Short Notes on the Following

6 x 5 = 30

- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.

PART C

Essay Type Questions

3 x 10 = 30

- 16.
- 17.
- 18.
- 19.
- 20.

<u>EVALUATION RUBRICS</u>		
THEORY (SEMESTER END EXAMS) 70M		
EVALUATION PATTERN: Answer in Brief: 2 M×5Q = 10		
Short Answers: 5M×4Q = 20		
Essay Type: 10M×4Q = 40		
Answer in Brief: 2 M		
• Clear definition/description	1.0	2.M×5Q = 10
• Importance	0.5	
• Significance	0.5	
Short Answers: 5M	01	5M×6Q = 30
• Introduction		
• Description/classification/pathway/functions etc.	02	
• Diagrams/ Flow charts/tables/charts/representation/general account	01	
• Importance/Significance	01	
Essay Type: 10M		10M×3Q = 30
• Introduction	02	
• Description/classification/pathway/functions etc.	04	
• Diagrams/ Flow charts/tables/charts/representation/general account	02	
• Importance/Significance	02	0

THEORY INTERNAL ASSESSMENT -- 30M		
1. Continuous Theory Internal Assessment C1+ C2+ MCQ (5+5+5)		
EVALUATION PATTERN: O - Outstanding: (Above 95%) A ⁺ - Excellent: (85-95% % of the allotted Marks) A - Very Good: (80 -85 % of the allotted Marks) B ⁺ - Good: (70-80 % of the allotted Marks) B - Above average (60- 70% of the allotted Marks) C - Average (50-60% of the allotted Marks) P - Pass (40-50% of the allotted Marks) F - Fail (Below 40%)		15
2. Assignments (Biotechnology Perspective)		
• Latest developments in that field	1	05
• Sentence structure and flow	2	
• Comparison between the recent technology developments	2	
3. Seminars (Journal Club) / Seminar Based on Internship Visit		
• Concept communication	1	05
• PPT/Video visibility, clarity & organization	1	
• References	1	
• Time limit	1	
• Confidence in answering queries	1	
4. Do Your Own Experiment Report/ Internship Report (for CPT 4.1)		
• Concept understanding	2	05
• Technical/scientific supporting material		
• Objectives		
• Methodology: Experimental skills and/or mathematical skills/Analytical skills	1	
• Innovation Quotient	1	
• Reference	1	
• Importance/Significance		
• Grammar and Style		

PRACTICALS (SEMESTER END EXAMS) 35M			
PRACTICALS Major (12) and Minor (7) Experiments- 19M			
	Major (12)	Minor (7)	
• Understanding of the Objective	02	02	12+7
• Principle of the experiment	03		
• Methods to be followed	03	02	
• Formula	01		
• Steps of Calculation	01	02	
• Result	01		
• Conclusion/Inference	01		
SPOTTERS: 2M X 3Q	1	06	
• Correct Identification	0.5		
• Description	0.5		
• Significance/Importance	0.5	10	
PRACTICAL VIVA:	05		
• Knowledge about the topic	2.5		
• Depth in understanding	2.5		
• Clarity in answers	2.5		
• Relating Practical conducted	2.5		
PRACTICAL INTERNAL ASSESSMENT – 15 M			
1. Continuous Practical Internal Assessment: C1			
EVALUATION PATTERN: Excellent: A (85-100 % of the allotted Marks) Very Good: B (70 -85 % of the allotted Marks) Good: C (55-70 % of the allotted Marks) Inadequate: D (< 55 % of the allotted Marks)			5
Do Your Own Experiment: 5M			
• Selection of the problem	3		5
• Hypothesis			
• Relevant Content			
• Demonstration	2		
Record submission: 05 M			
• Content page	1		5
• Certificate			
• Dates of experiments	1		
• Content & legibility			
• Diagrams /graphs			
• Proper representation of results	1.5		

GROUP PROJECT: 70 M		
<ul style="list-style-type: none"> • Project value • Project innovation and implementation of their ideas • Group coordination and involvement in the activities 	20	70
<ul style="list-style-type: none"> • Plagiarism • Review of Literature • Introduction • Hypothesis • Gaps in Research 	15	
<ul style="list-style-type: none"> • Materials and Methods • Results and Discussion • Summary and Conclusion 	25	
<ul style="list-style-type: none"> • Scientific Knowledge produced • Societal Impact • References • Grammar/ Spelling 	10	
PROJECT VIVA- 35 M		
<ul style="list-style-type: none"> • Introduction - Significance of topic, • objectives 	7.5	35
<ul style="list-style-type: none"> • Review - succinct explanation, current reviews • Methodology -selection of experiments 	7.5	
<ul style="list-style-type: none"> • Results & Discussion- clear and lucid presentation, organization of data/ charts/ spectral data, highlight of key findings with suitable justification 	15	
<ul style="list-style-type: none"> • Reference- Appropriate references 	05	