(M.Sc. - HomeScience) (Food Biotechnology)
(M.Sc. - H.Sc.) (Food Biotechnology) Semester (I)

Course Code	PH01CFBT56	Title of the Course	Practical based on PH01CFBT55 (Cell and Molecular Biology)
Total Credits of the Course	02	Hours per Week	04

Course Objective:	1. The objective of the course is to acquaint students with the extraction, isolation and estimation of DNA and RNA from microorganisms

Course Content		
Unit	Description	Weightage (%)
1.	Estimation of DNA	8
2.	Estimation of RNA	8
3.	Isolation of auxotrophic mutants	14
4.	Isolation of antibiotic resistant strain	8
5.	RNA isolation from yeast	14
6.	Total chromosomal DNA isolation	8
7.	Plasmid isolation. (a) Mini preparation with 2ml (b) Mini preparation with 5ml	16
8.	Bacterial transformation	8
9.	Bacterial conjugation	8
10.	Characterization of DNA by gel electrophoresis	8

Teaching-Learning Methodology	Classroom lectures (Blackboard), demonstration and then actual performance by students, discussion of results

Evaluation Pattern

Sr. No.	Details of the Evaluation	Weightage
1.	Internal Written / Practical Examination (As per CBCS R.6.8.3)	15%
2.	Internal Continuous Assessment in the form of Practical, Viva-voce, Attendance (As per CBCS R.6.8.3)	15%
3.	University Examination	70%

Course Outcome: Having completed this course, the learner will be able to:	
1.	Conduct the extraction, isolation and estimation of DNA and RNA from microorganisms.

Suggested References:	
Sr. No.	References
1..	Rakesh Patel and Kiran Patel. (2012). *Experimental Microbiology*- part 2, Aditya Publication.

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