

DISCIPLINE: BIOTECHNOLOGY	SEMESTER:3 <sup>RD</sup>	NAME OF THE TEACHING FACULTY: SWETANGINI NAIK
SUBJECT: Introduction to Biotechnology	NO.OFDAYS/PER WEEK CLASSALLOTTED:4	SEMESTERFROM DATE:1/10/2021 TO DATE: 08/01/2022 NO OF WEEK: 15
WEEK:	CLASS DAY:	THEORY/PRACTICAL TOPICS:
1 <sup>st</sup>	1 <sup>st</sup>	1.1 Introduction of Biotechnology
	2 <sup>nd</sup>	History
	3 <sup>rd</sup>	Traditional biotechnology
	4 <sup>th</sup>	Fermentation technology
2 <sup>nd</sup>	1 <sup>st</sup>	Fermentation technology
	2 <sup>nd</sup>	modern biotechnology
	3 <sup>rd</sup>	r DNA technology
	4 <sup>th</sup>	Genetic engineering
3 <sup>rd</sup>	1 <sup>st</sup>	Different disciplinary of Biotechnology
	2 <sup>nd</sup>	Different disciplinary of Biotechnology
	3 <sup>rd</sup>	Applications of biotechnology
	4 <sup>th</sup>	Global impact of Biotechnology.
4 <sup>th</sup>	1 <sup>st</sup>	Genes and genetics
	2 <sup>nd</sup>	Basic concept of DNA
	3 <sup>rd</sup>	Watson and crick model of DNA
	4 <sup>th</sup>	Chemical composition of DNA
5 <sup>th</sup>	1 <sup>st</sup>	Chemical composition of DNA
	2 <sup>nd</sup>	PCR technology
	3 <sup>rd</sup>	PCR technology
	4 <sup>th</sup>	Structure of RNA
6 <sup>th</sup>	1 <sup>st</sup>	Structure of RNA
	2 <sup>nd</sup>	Chemical composition
	3 <sup>rd</sup>	Chemical composition
	4 <sup>th</sup>	Genes
7 <sup>th</sup>	1 <sup>st</sup>	Genome.
	2 <sup>nd</sup>	Genome.
	3 <sup>rd</sup>	Environmental biotechnology
	4 <sup>th</sup>	Bioremediation
8 <sup>th</sup>	1 <sup>st</sup>	Xenobiotics
	2 <sup>nd</sup>	Xenobiotics
	3 <sup>rd</sup>	Bioaugmentation
	4 <sup>th</sup>	Bioaugmentation

9 <sup>th</sup>	1 <sup>st</sup>	Vermi -composting
	2 <sup>nd</sup>	Vermi composting
	3 <sup>rd</sup>	Microbial Leaching
	4 <sup>th</sup>	Microbial Leaching
10 <sup>th</sup>	1 <sup>st</sup>	Animal biotechnology
	2 <sup>nd</sup>	Main terminology in cell culture
	3 <sup>rd</sup>	Main terminology in cell culture
	4 <sup>th</sup>	Minimal requirements for animal cell culture
11 <sup>th</sup>	1 <sup>st</sup>	Minimal requirements for animal cell culture
	2 <sup>nd</sup>	Media composition of animal cell culture
	3 <sup>rd</sup>	Media composition of animal cell culture
	4 <sup>th</sup>	Some examples of transgenic animals (like Dolly)
12 <sup>th</sup>	1 <sup>st</sup>	Some examples of transgenic animals (like Dolly)
	2 <sup>nd</sup>	Some application of animal cell culture
	3 <sup>rd</sup>	Some application of animal cell culture
	4 <sup>th</sup>	discussion
13 <sup>th</sup>	1 <sup>st</sup>	Class test
	2 <sup>nd</sup>	Biotechnology & biosafety
	3 <sup>rd</sup>	Biosafety guideline and Regulations
	4 <sup>th</sup>	Biosafety guideline and Regulations
14 <sup>th</sup>	1 <sup>st</sup>	IPR and IPP
	2 <sup>nd</sup>	WIPO
	3 <sup>rd</sup>	WIPO
	4 <sup>th</sup>	Patenting of Biological materials
15 <sup>th</sup>	1 <sup>st</sup>	Patenting of Biological materials
	2 <sup>nd</sup>	Significance of patents in India
	3 <sup>rd</sup>	Significance of patents in India
	4 <sup>th</sup>	Revision and class test