

#### ST. ANN'S COLLEGE FOR WOMEN

(Affiliated to Acharya Nagarjuna University, Recognized Under Section 2(f) of UGC Act 1956-New Delhi)

Amaravathi Road, Gorantla, Guntur – 522034 (A.P)

Email: st\_anns\_coll@yahoo.co.in Website: www.stannscollegeforwomen.org

**Criterion: II** 

**Metric –2.3.1** 



#### 2.3.1 STUDENT CENTRIC METHODS

**Department of Microbiology** 



# Department of MICROBIOLOGY

## STUDENT CENTRIC METHODS

Experiential Learning	Participative Learning	Problem Solving	
- Work shop	- Practical Demonstration	- Mini Projects	
- Lab sessions	- Industrial visits	- Assignments	
- Project & Internship	- Exhibitions		
- Group Discussions	- Student seminars		
- Poster presentations	- Competitions-Quiz		
- Power point	- Blood Groups		
Presentations	- Pioneer of Microbiology		

#### **Experiential Learning**



On 28<sup>th</sup> April 2023, Department of Microbiology along with college management had organized BIOANALYTICA-2023, "One-Day Workshop on Bio Analytical Techniques" with the Collaboration of Pasteur Education and research Training Laboratory (PEARL) Guntur. Dr. M. Guravaiah, Asst. Professor, HOD, Dept. of Bio–Technology & Microbiology, JKC College Guntur is the Resource person of the Programme, participation certificate had given to all the Participants around 125 students from various colleges were participated in this Workshop. To train the Students for the development of Microbial Culture methods. To Provide the participants hands on – Experience on Microbial Analytical Techniques



**Students Explaining the Microbial Culture Techniques** 



Students presenting the Antibiotic Disc Diffusion Method



Students Explaining about the Digital colony Counter, other techniques of Microbiology



**Students Explaining Immobilization method** 







**Certificate Presentation** 



- ❖ To Develop understanding ability of concepts to work together
- ❖ To Enhance Research skills among the students















## INTERNSHIPS AND PROJECTS

As per the revised CBCS based curriculum which is implemented from the academic year 2020-21, three internships are mandatory for all students

#### First Internship (Community service project)

To inculcate social responsibility and compassionate commitment among the students, the summer vacation in the intervening **1st and 2nd Semester** of study shall be for Community Service Project

To provide students an opportunity to familiarize themselves with urban / rural

#### Second Internship ( after 2nd year examinations):

Learn to appreciate work and its function towards future

#### Third internship (5th/6thSemester period):

During the entire 5th /6th Semester, the student shall undergo Apprenticeship / Internship. This is to ensure that the students develop hands on technical skills which will be of great help in facing the world of work.

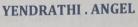
#### **PROGRAM BOOK** FOR

## COMMUNITY SERVICE PROJECT

Submitted in accordance with the requirement for the Degree of BACHELOR OF SCIENCE



Submitted by



Reg. No: OAM202101613350

Hall Ticket No : Y213158053

PERIOD OF CSP : FROM OCTOBER TO DECEMBER NAME OF THE PROJECT: AWARENESS ON DIABETES

NAME OF THE VILLAGE : GORANTLA

PRATHIPATI (MANDAL) GUNTUR (Dt).

Under the Guidance of

Mrs.B.RANJITHA

DEPARTMENT OF MICROBIOLOGY

#### ST. ANN'S COLLEGE FOR WOMEN

(AFFILIATED TO ACHARYA NAGARJUNA UNIVERSITY) GORANTLA, GUNTUR-34.

ANDHRA PRADESH.

2020 - 2021.

ANDHRA PRADESH STATE COUNCIL OF HIGHER EDUCATION

(A STATUTORY BODY OF GOVERNMENT OF ANDHRAPRADESH).

## Student's Declaration

I,	yendrathi Angel	, a student o	of CSP	Program,
Reg	yendrathi Angel No. Y21315805	3 of the Depar	rtment of	Microbiology
St	-Anns.	_ College do hereby	declare that	I have completed
	mandatory community			
	gorantla (Nam	e of the Community/	Habitation) u	nder the Faculty
Gui	deship of Mrs. B. Rav	istha , (Name o	f the Faculty C	Guide), Department
of _	Microbiology	in& AnniCottes	ge	

Y. Argel - 15/12/22 (Signature and Date)

**Endorsements** 

B. Raujitle Faculty Guide

Head of the Department

B · Raujithe

Head of Dept. of Microbiology

St. Ann's College for Women

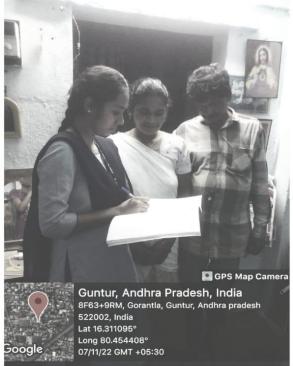
GORANTLA, GUNTUR-522034.

Principal

PRINCIPAL

St. Ann's College for Women GORANTLA, GUNTUR-522 034









#### **PROGRAMBOOKFOR**

#### SHORTTERMINTERNSHIP

SubmittedinaccordancewiththerequirementfortheDegree of BACHELOROFSCIENCE



Submittedby Mukku.Pavithra

HallTicketNo:Y213158038

**PERIODOFINTERNSHIP** 

FROM

MAYTO: JULY

NAMEOFTHEORGANIZATION

:SALESFORCEDEVELOPER

UndertheGuidanceof

Mrs.B.Ranjitha

DEPARTMENTOFMICROBIOLOGY

ST.ANN'SCOLLEGEFORWOMEN

(AFF

TOACHARYANAGARJUNAUNIVERSITY)GORANTLA,GUNTUR-34. ANDHRAPRADESH.

2022-2023.

ANDHRAPRADESHSTATECOUNCILOFHIGHEREDUCATION (ASTATUTORYBODYOFGOVERNMENTOFANDHRAPRAOESH)

#### Official Certification

This is to certify that M. Pourthra (Name	e of
the student) Reg. No. 121158038 has completed his/her Internship	in
Of the Intern Organization)	OTT
salesface developer (Title of the Internship) under	my
supervision as a part of partial fulfillment of the requirement for	the
Degree of Mccobcology in the Department	of
Ann's college for correllame of the College).	

This is accepted for evaluation.

1×1- Paultra - 28/8/23 (Signatory with Date and Seal)

**Endorsements** 

B. Ranjitle

Head of the Department

B. Rangithe

Head of Dept. of Microbiology St. Ann's College for Women GORANTLA, GUNTUR-522034.

Principal

PRINCIPAL St. Ann's College for Women GORANTLA, GUNTUR-522 034

Page No:









#### **Mukku Pavithra**

During the 8 Weeks period of Virtual Internship (May-July 2023), Mukku Pavithra has completed the following Salesforce Trailhead modules





#### PROGRAM BOOK FOR

#### LONG TERM INTERNSHIP PROJECT

Submitted in accordance with the requirement for the Degree of BACHELOR OF LIFE SCIENCE



#### Submitted by

Perupogu.Kyatharin

Reg. No: OAM202100602817

Hall Ticket No: Y203158051

Period of Long Term Internship : FROM APRIL 5 To JUNE 25

NAME OF THE INTERNSHIP : ANTIBIO

: ANTIBIOTIC PRODUCTION FROM

**BIOMASS** 

Under the Guidance of

Mrs. B.Ranjitha

# DEPARTMENT OF MICROBIOLOGY ST. ANN'S COLLEGE FOR WOMEN

(AFFILIATED TO ACHARYA NAGARJUNA UNIVERSITY
RECOGNIZED BY UGC 2F,NEW DELIII) GORANTLA, GUNTUR-34.
ANDIRA PRADESII.

2022 - 2023.

ANDHRA PRADESH STATE COUNCIL OF HIGHER EDUCATION
(A STATUTORY BODY OF GOVERNMENT OF ANDHRAPRADESH)

#### Official Certification

This is to certify that Perupogu	Kyatharin	(Name of
the student) Reg. No. 4203158051		
pearls lab (Name of		
Antibiotic production of biomat	itle of the Int	ernship) under my
supervision as a part of partial for	ulfillment of the	requirement for the
Degree of Wicrobiology	in th	e Department of
St. Ann's college for (Name of the		

This is accepted for evaluation.

(Signatory with Date and Seal)

Endorsements

Faculty Guide

Head of Dept. of Microbiology 28 | 06 | 23

St. Ann's College for Women

GORANTLA, GUNTUR-522034.

Head of the Department

Principal

PRINCIPAL

St. Ann's College for Women
GORANTLA, GUNTUR-522 034

10 they

ISO 9001: 2015 Certified Institute

## PASTEUR EDUCATION AND RESEARCH TRAINING LABORATORY (PEARL) ... A Research Training College

unique in the babble delated by the termination of the babble delated by the babble dela

Mangaldas Nagar, 3rd Lane, Rajagopal Nagar, Near Best Price, GUNTUR - A.P.



# Certificate of Internship Completion

This is to Certify that Mr./Mr	s. Perupogu	kyatharin	
Reg. No. 4203158051			
in Antibiodic Production from Biomass from.	April	to	June
The overall performance of the	Intern during l	him / her Intern	ship is found to be
Satisfactory		Sand Research	CH. Brunn



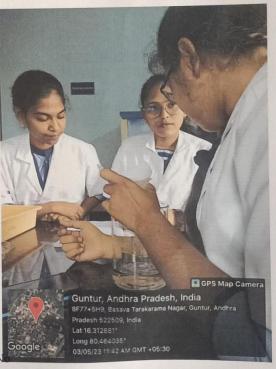
Director

C.E.O. TRAINING LABORATORY (PEARL)
D.No: 42-12-179, 3rd Line Raja Gopal Nagar,
Mangaladas Nayar, Mangalagiri Road,
GUNTUR-522 001. (A.P.)









Project based learning is problem based learning." It is a unique approach to teaching students while developing their critical thinking and problem solving skills through collaboration with a small group of students. Students active invovlement in the project of **Cultivation of Oyster Mushrooms** in the Microbiology lab that gave a wide scope for the enhancement of creative and observative skills from the Month **December to February** 

S. No	Name of the Students	Registered No.	Topics- Title
1	B. Mallika	Y173158041	Cultivation of white Button Mushroom
2	I. Radhika	Y173158055	Cultivation of white Button Mushroom
3	I. Harika	Y173158056	Cultivation of white Button Mushroom
4	D. Bhagya Rani	Y173158044	Cultivation of Paddy Straw Mushroom
5	G. Koteswari	Y173158049	Cultivation of Paddy Straw Mushroom
6	L. Gayathri	Y173158064	Cultivation of Paddy Straw Mushroom
7	P. Bushra Tabassum	Y173158065	Cultivation of Paddy Straw Mushroom
8	A. Haritha	Y173158038	Cultivation of Oyster Mushroom
9	G. Sowjanya	Y173158048	Cultivation of Oyster Mushroom
10	P. Lavanya	Y173158066	Cultivation of Oyster Mushroom
11	Y. Anila	Y173158070	Cultivation of Oyster Mushroom



**Substrate Preparation for Oyster Mushroom Cultivation** 



**Sterilization and Incubation** 



Soaking process is done by Students for Mushroom Cultivation



## Students fill the Substrate and Spawns in a Bags



**Ready to Fruiting of Mushrooms** 





**Harvest and Yield the Oyster Mushrooms** 



#### A STUDY ON

#### **CULTIVATION OF OYSTER MUSHROOM**

A Project Report Submitted In Partial Fulfillment of the requirement for the Award of Degree

BACHELOR OF SCIENCE





#### SUBMITTED BY

P.LAVANYA (III MBC)

REGD.NO.Y173158066

Semester-VI

UNDER THE GUIDANCE OF Mrs.B.RANJITHA

(M.Sc)

DEPARTMENT OF MICROBIOLOGY

ST.ANN'S COLLEGE FOR WOMEN

GORANTLA, GUNTUR-35 ANDHRA PRADESH 2019-2020

## ST.ANN'S COLLEGE FOR WOMEN

GORANTLA, GUNTUR-35.

#### **BACHELOR OF SCIENCE**



#### **CERTIFICATE**

This is to certify that this study on "CULTIVATION OF OYSTER MUSHROOM", Guntur has been submitted by P.LAVANYA In partial fulfillment of the requirements for award of degree of BACHELOR OF SCIENCE as for requirement of ACHARYA NAGRJUNA UNIVERSITY during the academic years 2019-2020.

Project Director Mrs.B.Ranjitha

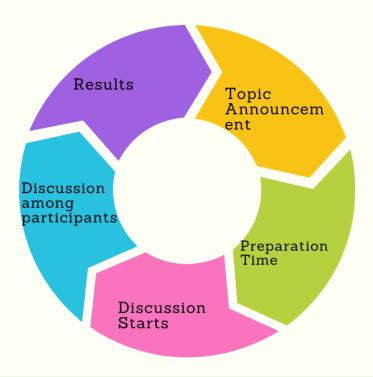
(M.Sc)

P. Award

Head of the Department Mrs.B.Ranjitha

(M.Sc)

## **Group Discussion Process**



The department of Microbiology has organized a Group discussion activity for II & III BSC BBC Students . This type of Group Discussion is to Evaluate the Speaking ability, Thinking & Listening Skills It help thw Students to gaining depth of Knowledge in their Subject.







## **POSTER PRESENTATIONS**



**Poster Presentation on Candidacies** 



**Student Poster Presentation on Hepatitis-B** 





# Participative Learning PRACTICAL DEMONSTRATION

As a part of Curriculum lab demonstrations are taken regularly In Microbiology Lab Relevant to protocols









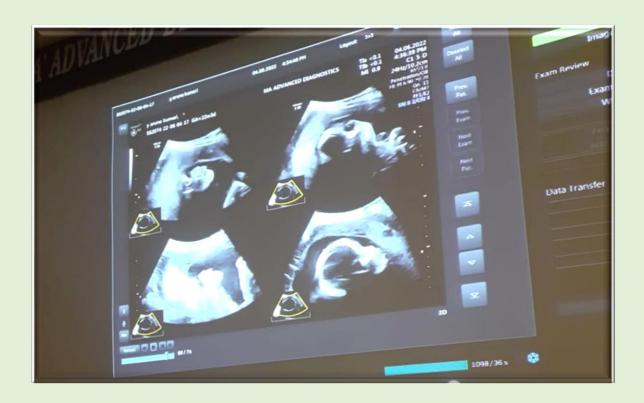


#### MAA ADVANCED DIAGNOSTIC & RESEARCH CENTER

On 17.07.2022The Department of Microbiology Students, visit to MAA Diagnostic Research centre, Guntur. Dr. M. Adi Narayana Rao. M.D.R.D,Founder President of Future India Foundation has Briefly explained to develop the create Scientific curiosity among the students and has taken lead Responsibility to Create Scientific tempo by IIT to MII 2040 Programme is Ignite Innovative Thinking(IIT) to Make India No.1 Innovations (MII) and also Explained the technical skill Processes of Instruments used in Diagnosis. Laboratory Diagnostic centre is required for providing effective diagnosis of the Disease. To promote Health Education and Medical Services Students lively Experienced 2D &3D Sonography



Lecture by Dr. M. Adi Narayana Rao. M.D.R.D





#### PEARL LAB VISIT

Lab visit was organized to **Pasteur education & Research training laboratory** (**PEARL**) Guntur. On 31<sup>st</sup> March 2022, III year Microbiology students. They were exposed to practical and Experimental knowledge.

Students had learn about experimental methods in culturing of microorganisms and Antibiotic sensitivity test by applying the different source of microorganism, and aware of various techniques like PCR. ELISA and the process of the Cultivation of Mushroom.





# Students learning about Antibiotic Disc Preparation in Microbial inoculation chamber





#### **SCIENCE FAIR EXHIBITION**

Department of Microbiology Students visit **Science Fair** at Chalapathi College on **24-11-2018.** Many Biological, Chemical and Physical models have been well Exhibited in the Science fair which helped the Students to grasp the Knowledge



Students visit Science Fair at Chalapathi College





The **Student Seminars** were held for the II & III BSC-MBC Students. All the final year students of Microbiology took part in Seminars. The overall aim of the seminar series is to help the students to develop their communication abilities. Conduction of Seminars will help the students to their promote skills, positive attitude, enhanced their confidential levels and knowledge seeking

S.No	Programme	Semester	Topic Covered	Name of the Student	No. of Students Attended
1.	B. Sc-MBC	III	Types of Immunity	G. Sushma	26
2.	B. Sc-MBC	III	Lymphoid organs	K. Sri Chandana	26
3.	B. Sc-MBC	II	Carbohydrates	B. Kavya	26
4.	B. Sc-MBC	V	Role of Microbes in Pharma &Therapeutic enzymes	Y. Angel	29
5.	B. Sc-MBC	V	Crowded plate technique	P. Amulya	29
6.	B. Sc-MBC	V	Nosocomial Infections	P. Sarojini	29
7.	B. Sc-MBC	V	Yogurt Production	P. Sindhuri	29



Student Seminar is Given by G.Sushma on Types of Immunity



#### Seminar is given by B.Kavya about the Carbohydrates



Seminar is given by Y. Angel on Role of Microorganisms on Pharma & Therapeutic Enzymes



**Seminar on yogurt Production** 



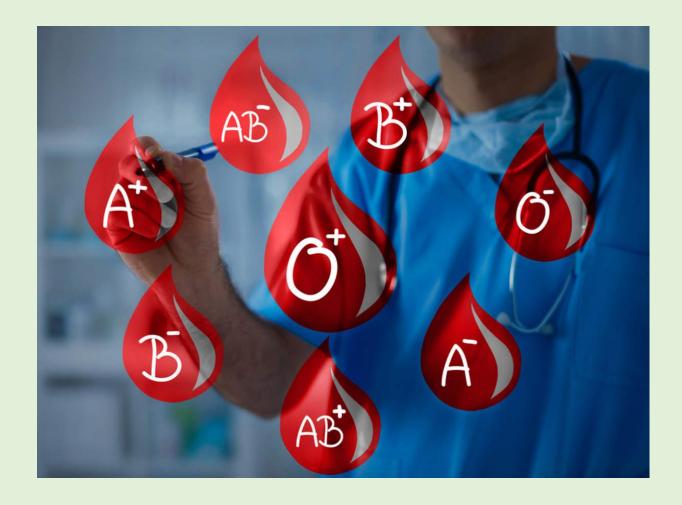
On the Occasion of National Science Day The Department of Microbiology **Quiz competition** conducted on **26-02-2023**. The students of Microbiology have participated **intra collegiate competitions** in Our College II,III year Microbiology students were participated above the events & receiving the first prize for the events

**Quiz competition winner Prize Distribution** 



**Staff conducted QUIZ** 





## **BLOOD GROUPS**

Blood Grouping Campaign was conducted by the Department of Microbiology on 30 August 2019. Our Principal and correspondent Rev. Dr. Sr. Fathima Rani. P inaugurated the programme and appreciated the models prepared by them. Final year microbiology students were actively involved in this blood grouping and tested Blood group and Haemoglobin %.Approximately 120 students are tested their Blood groups.



**Students performing the Estimation of HB%** 



**Identifying the Blood Group to Principal Sister** 



**Students Explaining about the Types of Blood Groups** 



**Students Explaining about the Blood Group Transfusion** 

#### **Estimation of Haemoglobin % Percentage**

Department of Microbiology were conducted the estimation of Haemoglobin % on 25<sup>th</sup> April 2022 to know the Haemoglobin % as a part of complete blood cont& routine medical examination to monitor your health disorders.III year students were actively involved in this test around 40 Students are check theisHemoglobin percentage %

#### Students performing the Blood Grouping & Hb%



Microbiology students testing to know their HB% B.Com Students



# PIONEERS OF MICROBIOLOGY

The study of microorganism is called microbiology a subject that began with Discoveries, inventionand contribution of scientist. Scientist have also exploited their knowledge of microbes The Department of microbiology Students was conducted **Pioneers of Microbiology**with photographs & models was held on **30 August 2019** 



Students Explaining about the Pioneers of Microbiology



# **POWER POINT PRESENTATION**

The Department of Microbiology Conducted PPT Presentations.Power point is an effective tool to present student ideas and goals in the classroom





PPT Presentation on Drug Resistance in Bacteria





# **CERTIFICATE COURSE**

The Department of Microbiology propose to enroll Certificate course on MEDICAL CODING. This programme is for the students of II-year BSC-MBC Students of our college commence from 18<sup>th</sup> March to 23<sup>rd</sup> March 2022. To ensure accurate medical billing and documenting medical record. To provide students with the opportunity to learn about the medical field and the coding process









#### **Problem Solving**



III BSC-MBS Students prepared Mini projects. it can help students to boost skills and widen students horizon of thinking

S. No	Class/Group	Торіс	No.of	Name of the
			Students	Concerned
			submitted	faculty
1.	III-MBC	Impact of Drug Resistance &	05	Mrs. B. Ranjitha
		Sensitivity		
2.	III-MBC	Collection of Clinical Samples	05	Mrs. B. Ranjitha
3.	III-MBC	Fungal Disease- Candidiasis	05	Mrs. B. Ranjitha
4.	III-MBC	Protozoal disease- Malaria	05	Mrs. B. Ranjitha
.5.	III-MBC	Bacterial Disease - Typhoid	05	Mrs. B. Ranjitha
6.	III-MBC	Viral Disease - HIV	05	Mrs. B. Ranjitha

Impact of Drug Resistance & Sensitivity

A Mini Project Report Submitted In Partial Fulfillment of the requirement for the Award of Degree BACHELOR OF SCIENCE



#### SUBMITTED BY

N.Priyanka (III MBC)

Regd.NO.Y203158046

#### **UNDER THE GUIDANCE OF**

Mrs.B.RANJITHA

M.Sc

DEPARTMENT OF MICROBIOLOGY

# ST.ANN'S COLLEGE FOR WOMEN

## **COLLECTION OF CLINICAL SAMPLES**

A Mini Project Report Submitted In Partial Fulfillment of the requirement for the Award of Degree

#### BACHELOR OF SCIENCE



#### **SUBMITTED BY**

P.Pressy (III MBC)

Regd.NO.Y203158049

#### **UNDER THE GUIDANCE OF**

Mrs.B.RANJITHA

M.Sc

DEPARTMENT OF MICROBIOLOGY

#### ST.ANN'S COLLEGE FOR WOMEN

# Candidiasis-Fungal Disease

A Mini Project Report Submitted In Partial Fulfillment of the requirement for the Award of Degree

BACHELOR OF SCIENCE



#### **SUBMITTED BY**

K.Lakshmi Priya (III MBC)

Regd.NO.Y203158039

#### **UNDER THE GUIDANCE OF**

Mrs.B.RANJITHA

M.Sc

DEPARTMENT OF MICROBIOLOGY

# ST.ANN'S COLLEGE FOR WOMEN

# Protozoal Disease-Malaria

A Mini Project Report Submitted In Partial Fulfillment of the requirement for the Award of Degree

BACHELOR OF SCIENCE



#### SUBMITTED BY

Sk.Shahina (III MBC)

Regd.NO.Y203158056

#### **UNDER THE GUIDANCE OF**

Mrs.B.RANJITHA

M.Sc

DEPARTMENT OF MICROBIOLOGY

#### **ST.ANN'S COLLEGE FOR WOMEN**

# Typhoid-Bacterial Disease

# A Mini Project Report Submitted In Partial Fulfillment of the requirement for the Award of Degree BACHELOR OF SCIENCE



#### SUBMITTED BY

S.Sandhya (III MBC) Regd.NO.Y203158058

# UNDER THE GUIDANCE OF Mrs.B.RANJITHA

M.Sc

DEPARTMENT OF MICROBIOLOGY

## ST.ANN'S COLLEGE FOR WOMEN

# Viral Disease-HIV

A Mini Project Report Submitted In Partial Fulfillment of the requirement for the Award of Degree

#### BACHELOR OF SCIENCE



#### **SUBMITTED BY**

N.Kavya Sri (III MBC) Regd.NO.Y203158047

# UNDER THE GUIDANCE OF Mrs.B.RANJITHA M.Sc

DEPARTMENT OF MICROBIOLOGY

# ST.ANN'S COLLEGE FOR WOMEN



The Department of Microbiology given the student Assignments. it provides opportunity for students to learn, practice & Demonstrate they have achieved the learning goals

#### ABSTRACT 2018-2019 to 2022-2023

S. No	Class/Group	Semester	Торіс	No. of Students Submitted		
	2022-2023					
1	I -MBC	I	Introduction to Microbiology and Microbial Diversity	29		
2	II -MBC	III	Molecular Genetics and Molecular Biology	29		
3	III -MBC	V	Food, Agricultural & Environmental Microbiology Management of Human Microbial Diseases & Diagnosis	30		
4	I -MBC	II	Microbial Biochemistry & Metabolism	29		
5	II -MBC	IV	Immunology & Medical Microbiology	29		
	2021-2022					
1	I -MBC	I	Introduction to Microbiology and Microbial Diversity	30		
2	II -MBC	III	Medical Microbiology & Immunology	30		

3	III -MBC	V	Environmental & Agricultural Microbiology, Food & Industrial Microbiology	21
4	I -MBC	II	Microbial Biochemistry & Metabolism	29
5	II -MBC	IV	Industrial Microbiology, Molecular Biology & Microbial Geneics	30
6	III -MBC	VI	Microbial Biotechnology Biofertilizers & Biopesticides	21
			2020-2021	
1	I -MBC	I	Introduction to Microbiology and Microbial Diversity	30
2	II -MBC	III	Molecular Genetics and Molecular Biology	23
3	III -MBC	V	Environmental & Agricultural Microbiology, Food & Industrial Microbiology	21
4	I -MBC	II	Microbial Physiology &Biochemistry	30
5	II -MBC	IV	Immunology & Medical Microbiology	23
6	III -MBC	VI	Microbial Biotechnology Microbes Sustainable in Agriculture	21
			2019-2020	
1	I -MBC	I	Introduction to Microbiology and Microbial Diversity	26
2	II -MBC	III	Molecular Genetics and Molecular Biology	21
3	III -MBC	V	Environmental & Agricultural Microbiology, Food & Industrial Microbiology	27
4	I -MBC	П	Microbial Biochemistry & Metabolism	26
5	II -MBC	IV	Immunology & Medical Microbiology	21
6	III -MBC	VI	Microbial Biotechnology	27
			2018-2019	
1	I -MBC	I	Introduction to Microbiology and Microbial Diversity	22
2	II -MBC	III	Molecular Genetics and Molecular Biology	29
3	III -MBC	V	Environmental & Agricultural Microbiology, Food & Industrial Microbiology	31
4	I -MBC	II	Microbial Biochemistry & Metabolism	21

5	II -MBC	IV	Immunology & Medical Microbiology	29
6	III -MBC	VI	Microbial Biotechnology	31

The Department of Microbiology given the student Assignments. it provides opportunity for students to learn, practice & demonstrate they have achieved the learning goals

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			2021-2022	
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			2020-2021	
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			2018-2019	
1	I -MBC	I	Introduction to Microbiology and Microbial Diversity	22
2	II -MBC	III	Molecular Genetics and Molecular Biology	29
3	III -MBC	V	Environmental & Agricultural Microbiology, Food & Industrial Microbiology	31
4	I -MBC	П	Microbial Biochemistry & Metabolism	21
5	II -MBC	IV	Immunology & Medical Microbiology	29
6	III -MBC	VI	Microbial Biotechnology	31

# ST.ANN'S COLLEGE FOR WOMEN

GORANTLA, GUNTUR

# MICROBIOLOGY ASSIGNMENT

TOPIC: TUBERCULOSIS

SUBMITTED TO:
RANJITHAMAM
HOD.OF MICROBIOLOGY

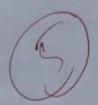
SUBMITTED BY: K.ROJI PAVANI

ROllNO: Y223158044

# ST.ANN'S COLLEGE FOR WOMEN GORANTLA, GUNTUR.

# MICROBIOLOGY ASSIGNMENT TOPIC:- ENZYME KINETICS & MICHAELIS MENTEN KINETICS

SUBMITTED TO:
Mrs.B RANJITHA Mam
HOD OF MICROBIOLOGY



SUBMITTED BY:
U SRILAKSHMI PRASANNA

1<sup>st</sup> MBC (1<sup>st</sup> SEM)

Y223158056

# ST.ANNS COLLEGE FOR WOMEN

GORANTLA (GUNTUR) ANDHRA PRADESH

# DEPARTMENT OF MICROBIOLOGY

TOPIC: PRINCIPALS OF FOOD PRESERVATION - PHYSICAL AND CHEMICAL METHODS.

SEMESTER-5 PAPER-6A

SUBMITTED TO: Mrs.B.RANJITHA(M.SC) HOD OF MICROBIOLOGY



SUBMITTED BY:
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REG NO:Y203158037
3rd YEAR MBC(5th sem)

# St. Anns degree college For Women Gorantla, Guntur Department of Microbiology Semester-II

Topic :- Glycolysis, HMP Pathway.

Submitted to:B. Ranjitha mam.

(5)

Submitted by:

P. Rama Devi I MBC Roll No: -20 St. Annis College for women Giorantia, Giuntur Microbiology Assignment Semester-IV

Topic: Typhoid

Submitted to

B. Ranjitha mam



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