

## Shiv Chhatrapati Shikshan Sanstha's Rajarshi Shahu Mahavidyalaya (Autonomous), Latur Department of Biotechnology

### A) Summary Report

1) Title of Programme:	Hands on Training Programme on Basic and Applied Microbiological Techniques								
2) Name of Organizing D	epartment/Unit:	Biotechnology							
3) Name of the Coordina	Principal: Dr. Mahadev Gavhane								
Convener(s)/	Vice- Principal: Prof. S. N. Shinde								
Organizer(s) of the Prog	<b>Head:</b> Dr. S. S. Kulkarni								
4) Date(s) of the Programme:		16 <sup>th</sup> December to 20 <sup>th</sup> December 2022							
5) Venue/ Mode:	5) Venue/ Mode:			of Biotechnolo	ogy				
6) Target Group:		Chemistry, Bo	otany & Z	oology PG stu	idents				
7) Number of Participan	7) Number of Participants: 84			Female		Total			
A separate list with	A separate list with Teaching			00					
signatures be	Non-Teaching	00		00		00			
maintained in the	Students	36		48		84			
department/Unit)									
8) Name(s) and details of Person(s), if any:	Dr. M. A. Dhote (Assistant Prof Dr. R. B. Ade (Assistant Prof Prof. S. D. Kad (Assistant Prof Prof. A. M. Dev (Assistant Prof Prof. S. M. Ban (Assistant Prof Prof. K. S. Kon (Assistant Prof Prof. K. R. Ga (Assistant Prof	essor, RSM am essor, RSM varshe essor, RSM sode essor, RSM natwar essor, RSM natwad	//L) //L) //L) //L) //L)						
9) Total Expenditure for	the Programme:	Nil							
10) Source of Funding:	Not applicable								

#### B) Report

#### i. Title:

Hands on Training Programme on Basic and Applied Microbiological Techniques.

#### ii. Introduction:

Science is growing at a great space in order to develop technologies that are beneficial for the human race. In that race Microbiological techniques are used for studying about microbes like bacteria, fungi and the protists. Microbes have extreme importance in our day today lives. They have both positive as well as negative belongings, like some are responsible for causing many potential diseases in human and other living beings while others are utilized for benefit of our environment. So, in order to study the microorganisms a Hands-on Training on Basic and Applied Microbiological Techniques was Organized for PG Chemistry, Botany & Zoology students of our college. The training programme gives an overview on the activity of microorganism on different chemical products which are synthesized by students during their project. The training programme includes knowledge about laboratory rules, Pure Culture Techniques, Anti-Microbial Susceptibility and Minimum Inhibitory Concentration of different chemical compounds synthesized by chemistry students as a part of their master's dissertation project along with the studies on standard antimicrobial products available in market and are in commercial use.

#### iii. Objectives of the Programme/ issues addressed

- > Students will be able to get familiar and get hands on experience of basic microbiological concepts like isolation of microbes, identification and application of Microorganisms.
- > Students will be able to relate their traditional microbiological techniques knowledge with their dissertation work for application of microorganisms
- To promote the interdisciplinary research in the college/institute

#### iv. Details of Participants

84 participants (36 Male and 48 female) attended the programme.

#### v. Brief Summary of Events/ Sessions:

Hands on Training Programme on Basic and Applied Microbiological Techniques is organized for Chemistry PG students on dated 16th December to 20th February. Firstly, Dr. S. S. Kulkarni welcomed the students and introduced about the department and the programme overview. After the inauguration the training programme is begin according to the schedule. On first day 16th February students were distributed in 4 batches under the guidance of 4 resource persons. SO, in morning session students get familiar with laboratory rules and laboratory equipment's and in afternoon practical session that is laboratory media preparation get started. On 17th February students were aware with the pure culture techniques for isolation of microorganisms and Anti-Microbial Susceptibility testing. On the next day 18th February students studied the morphology microorganisms and in afternoon new practical get started that is the Minimum Inhibitory Concentration. On 19th February the results of Minimum Inhibitory Concentration were recorded and there is a doubt clearing is also there. On the last day the students specially Botany and Zoology students get to know about Molecular Instrumentation and Plant tissue culture. Students thoroughly enjoyed this training programme.

#### vi. Conclusion, with feedback on the programme: -

Hands on training programme on Basic and Applied Microbiological Techniques was successfully completed. Students thoroughly relished this training programme. Students got knowledge about different microbiological techniques used in prevention and control of microorganisms. After the training programme students used the microbiological techniques during their dissertation work and completed their project work.

vii. Appendix: - List of participants.

Date: 21/12/2022

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Rajarshi Shahu Mahavidyalaya,Latur (Autonomous)

#### **C)** Geotagged Photographs / Screenshots:



Inauguration Function of Hands-on Training on Basic and Applied Microbiological Techniques: In Presence of Hon. Prof. S. N. Shinde (Vice-Principal,) of Rajarshi Shahu Mahavidyalaya (Autonomous), Latur., Dr. D. G. Palke (HoD of Dept. of Chemistry), Dr. K. I. Momin (Assistant Professor, Dept. of Chemistry, RSML), Dr. D. S. Rathod (HoD of Dept. of Zoology), Dr. S. S. Kulkarni (HoD of Dept. of Biotechnology, RSML).



Resource Person Dr. M. A. Dhotre, Assisstant Professor, Department of Biotechnology, Rajarshi Shahu Mahavidyalaya (Autonomous), Latur, conducting the session and students were getting hands on practice session.



Resource Person Dr. R. B. Ade, Assisstant Professor, Department of Biotechnology, Rajarshi Shahu Mahavidyalaya (Autonomous), Latur, conducting the session and students were getting hands on practice session.



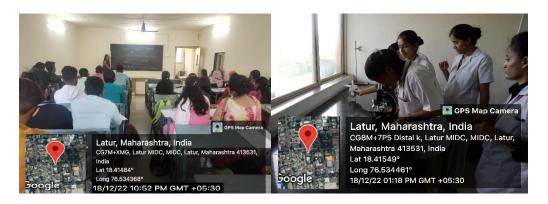
Resource Person Prof. S. D. Kadam, Assisstant Professor, Department of Biotechnology, Rajarshi Shahu Mahavidyalaya (Autonomous), Latur, conducting the session and students were getting hands on practice session.



Resource Person Prof. A. M. Devarshe, Assisstant Professor, Department of Biotechnology, Rajarshi Shahu Mahavidyalaya (Autonomous), Latur, conducting the session and students were getting hands on practice session.



Resource Person Prof. S. M. Bansode, Assisstant Professor, Department of Biotechnology, Rajarshi Shahu Mahavidyalaya (Autonomous), Latur, conducting the session and students were getting hands on practice session.



Resource Person Prof. K. S. Komatwar, Assisstant Professor, Department of Biotechnology, Rajarshi Shahu Mahavidyalaya (Autonomous), Latur, conducting the session and students were getting hands on practice session.



Resource Person Prof. K. R. Gaikwad, Assisstant Professor, Department of Biotechnology, Rajarshi Shahu Mahavidyalaya (Autonomous), Latur, conducting the session and students were getting hands on practice session.

#### D) Boucher of the Programme: -



Organized for the students of Department of Botany, Chemistry & Zoology, Rajarshi Shahu Mahavidyalaya, (Autonomous) Latur

### E) Schedule for Hands-on Training: -

# Schedule for Hands on Training programme on Basic and Applied Microbiological Techniques

Sr. No.	Date	Time	Practical
		09:00 AM to 12:00 PM	<ul> <li>✓ Laboratory Rules: Basic Rules of a         Microbiology Laboratory</li> <li>✓ Study of Laboratory Equipment's</li> </ul>
1	16/12/2022	12:00 PM to 1:00 PM	Lunch Break
		01:00 PM to 05:00PM	<ul><li>✓ Laboratory Media Preparation</li><li>✓ Media Plate Preparation</li></ul>
		10:00 AM to 01:00 PM	✓ Pure Culture Techniques
2	17/12/2022	01:00 PM to 02:00 PM	Lunch Break
		02:00 PM to 05:00 PM	✓ Anti-Microbial Activity
	Telephone	10:00 AM to 01:00 PM	✓ Identification of Isolated Microorganisms
3	18/12/2022	01:00 PM to 02:00 PM	Lunch Break
-	338	02:00 PM to 05:00 PM	<ul><li>✓ Results of Anti-Microbial Activity</li><li>✓ MIC Practical</li></ul>
		10:00 AM to 12:00 PM	✓ Results of MIC
		12:00 PM to 01:00 PM	✓ Lunch Break
4	19/12/2022	01:00 PM to 04:00 PM	✓ Doubts Clearing Sessions
		10:00 AM to 01:00PM	✓ Introduction to Molecular Instrumentation ✓ Plant Tissue Culture
5	20/12/2022	01:00 PM to 02:00 PM	✓ Lunch Break
		02:00 PM to 04:00 PM	✓ Valedictory Function

Head of Department Dr. S. S. Kulkarni

Head

Department of Biotechonlog

Rajarshi Shahu Mahavidyalay

(Autonomous) Latur-413 55,

## Rajarshi Shahu Mahavidyalaya (Autonomous), Latur

## Department of Biotechnology

# Hands on Training Programme Basic and Applied Microbiological Techniques Student Attandance Sheet

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