

REF: MSRCASC-A/WS/CIR/2024-25/43

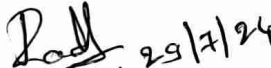
Date: 29/07/2024

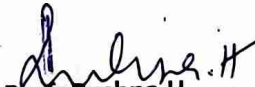
## CIRCULAR

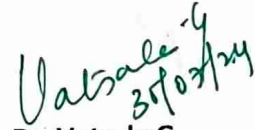
Department of Biotechnology & Genetics is organizing a Workshop on 'Mushroom farming, research innovation & marketing strategies for advancement towards Entrepreneurship' by Dr. Channarayappa, Professor, Dept. of Biotechnology & Genetics from 11.40am to 12.40pm on July 30, 2024 in collaboration with Research & Development, MSRCASC for undergraduate (BSc I sem) students belonging to Life Science are the main targeted audience.

Venue: Kuvempu Seminar Hall

With regards,

  
Dr. Radha Dayanidhi  
Head of the Department

  
Prof. Pushpa H  
Vice Principal

  
Dr. Vatsala G.  
Principal  
Principal  
M.S.Ramaiah College of Arts, Science &  
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E principal.msrmasc@gmail.com  
W www.msrmasc.edu.in

## Organizing Committee

Dr. Vatsala G, Principal  
Dr. Pushpa H, Vice Principal  
Dr. Channarayappa, Professor & Research Head  
Dr. Savitha, Research advisor  
Dr. Ramesha N. Professor  
Dr. Lakshmikanth R N  
HOD & Associate Professor  
Dr. D. R. Jayashree, Professor  
Dr. Ramakrishnaiah T.N., Assistant Professor  
Dr. Sowbhagya R., Assistant Professor  
Dr. Radha Dayanidhi, Assistant Professor,  
Head (UG)  
Dr. Geetika Pant, Assistant Professor  
Dr. Vinutha M, Assistant Professor  
Ms. Beaulah Angel, Assistant Professor  
Dr. Pramod Prakash Desai, Assistant Professor  
Dr. PavithraKumari H.G. Assistant Professor  
Dr. Muktha H, Assistant Professor  
Dr. Satish Babu, Assistant Professor  
Dr. Vijayalakshmi T.N., Assistant Professor  
Dr. Vinay Hegde, Assistant Professor



**RAMAIAH**  
College of Arts, Science  
& Commerce - Autonomous



Department of  
Biotechnology  
Govt. of India

## Patrons

**Dr. M R Jayaram**  
Hon'ble Chairman, GEF  
**Sri. M R Janakiram**  
Hon'ble Director, GEF  
**Sri. M R Kodandaram**  
Hon'ble Director, GEF  
**Sri. B S Ramaprasad**  
Chief Executive, GEF (Eng. & GS)  
**Sri. G Ramachandra**  
Chief of Finance, GEF (Eng. & GS)

DEPARTMENT OF BIOTECHNOLOGY AND  
GENETICS

Organizes a Workshop on

**'Mushroom farming, research  
innovation & marketing strategies  
for advancement towards  
Entrepreneurship'  
(An IQAC initiative)**



**RESOURCE PERSON**

**Dr. Channarayappa,  
Professor & Head,  
Research & Development  
MSRCASC**

Date: July 18, 2024

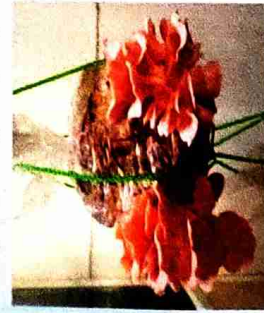
Time: 11.40 am- 1.40 pm

Venue: Kuvempu Seminar Hall

## 'Mushroom farming, research innovation & marketing strategies for advancement towards Entrepreneurship'



Mushrooms are the fruiting bodies of a fungus, just like apples are the fruiting bodies of an apple tree. A mushroom is a kind of fungus with the Latin name of *Agaricus bisporus*. Mushrooms are nutritious, containing protein, vitamins, and minerals. They also have medicinal properties like strengthening immunity, reducing cholesterol, and preventing cancer. Mushroom cultivation provides economic and environmental benefits by utilizing agricultural waste and generating employment.



### ABOUT THE COLLEGE

Dr. MS Ramaiah, a visionary and philanthropist established "Gokula Education Foundation (GEF)", in the year 1962, to deliver education and healthcare for the betterment of mankind. Under the tutelage of GEF, M. S. Ramaiah College of Arts, Science and Commerce (MSRCASC) was established in 1994. MSRCASC is Re -accredited with "A" Grade by NAAC, permanently affiliated to Bengaluru City University (BCU), and approved by AICTE. It is also recognized under section 2 (f) & 12(B) of the UGC Act 1956. The College has a legacy of organizing workshops, international and national conferences in various disciplines of Science, Commerce and Management in addition to Quality Initiatives in Higher Education.

### ABOUT THE DEPARTMENT / OBJECTIVES OF THE PROGRAM

Department of Biotechnology and Genetics in the M S Ramaiah College of Arts, Science and Commerce, was established in the year 2000 offering both UG and PG programs. The main objective of the programs is to provide conducive learning environment for the students and to mitigate the shortage of biotechnologists in the field of food, agriculture, medicine and environmental management. Highly qualified and experienced faculty members deliver the lectures and conduct the practical in various subjects of as per the curriculum developed by the Bangalore City University. The department focuses mainly on teaching the basics, applications and hands-on training in a state-of-the-art classroom and laboratory environment. It also facilitates students to broaden their knowledge for multitasking.



### Programme Outcome

- i) Provide students hands-on training, and practical application on mushroom culture
- ii) Facilitate active learning opportunities and peer-to-peer exchanges in concept development
- iii) Effectively articulate their role as entrepreneurship

### Programme Convenor

**Dr. Radha Dayanidhi**

Department of Biotechnology and Genetics,

**MSRCASC**

**'Mushroom farming, research innovation & marketing strategies for  
advancement towards Entrepreneurship'**

**(An IQAC initiative)**

**Date:** July 30, 2024

**Name of the Resource Person:** Prof. Dr. Channarayappa, Research Head, MSRCASC,  
Bengaluru

**Number of Participants:** BSc I sem Life Science students – 120 in number, MS Ramaiah  
College of Arts, Science and Commerce, Bangalore

**Organizer:** Dept. of Biotechnology and Genetics

**Venue:** Kuvempu Seminar Hall, MSRCASC, Bengaluru

**Time:** 11.40am to 1.40pm

**Objectives**

1. To enhance the skills and knowledge of students
2. To emphasize the students on the experiential learning with the different teaching strategies
3. To inculcate the students with effective learning and critical thinking
4. To revive the interest of students and provides the opportunity to interact with expertise

The department of Biotechnology and Genetics organized a workshop for Life Science students, BSc I sem students on July 30, 2024. The workshop commenced with the welcome address by Dr. PavithraKumari H.G., Assistant Professor. The resource person, Dr. Channarayappa was welcomed by the Principal. Later, Dr. Radha Dayanidhi, Head of the dept. of Biotechnology & Genetics, welcomed the Principal. Dr. Vatsala G., Principal addressed the students through which the message was conveyed, to have an experiential learning from the workshop. Tejaswini, BSc IV sem student anchored the entire program. Dr.

Radha Dayanidhi, Assistant Professor, Dept. of Biotechnology & Genetics introduced the resource person- Dr Channarayappa, Research Head.

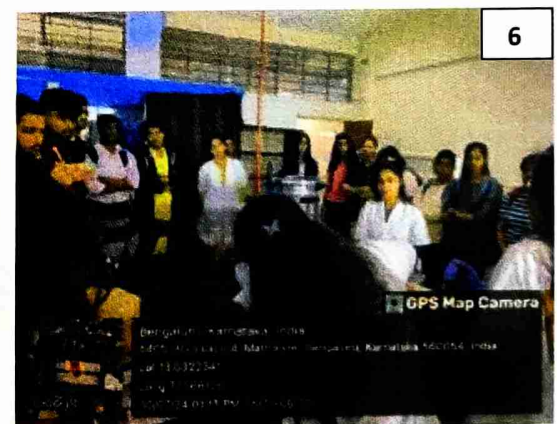
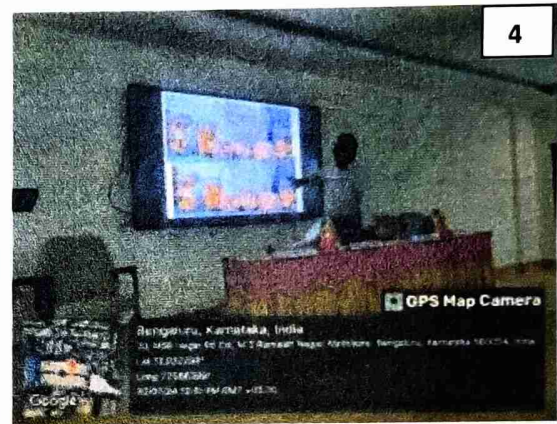
The summary of workshop was with the following key areas: It was mainly focussed on the Mushroom farming, research and marketing. This workshop covered different phases of research project including both basics and applications in the field of mushroom cultivation. Mushroom cultivation is also called Fungi-culture, historically mushroom cultivation was started in the United States in the year 1865. In India B.C. Roy (1896-1897) of the Calcutta Medical College carried out a chemical analysis of the local mushrooms prevalent in caves or mines. Sir David Prain (1908) made a thorough search for edible mushrooms from various parts of India. Mushrooms have been used for centuries as vegetables and in other forms. Some of the new food products developed odles, pickles. Thus, a mushroom farm is involved in the business (Agribusiness) of growing fungi rather than confined to culinary purposes alone. The farmers harvest mushrooms from wildy grown in forest areas and organic-rich soils, where mushrooms grow naturally. However, the mushroom cultivation has become more organized and taken as an occupation. Commercially grown species are Button and Oyster Mushrooms, followed by other tropical mushrooms like Paddy straw mushrooms, milky mushrooms, and many other types. There is significant benefits of mushroom production, mushrooms have various benefits, which include: a) nutritional benefits: Mushrooms are also called super foods, it has a great source of protein (3-7%, contain all essential amino acids), minerals, vitamins, and fiber, and can be used for human consumption in multiple ways. Mushroom cultivation encourages the development of new food products. b) Medicinal benefits: Recently, mushrooms have been used as medicine, Decrease the risk of cancer, and heart disease, Lower sodium intake, promote lower cholesterol, protect brain health, provide a source of vitamin D, stimulate a healthier gut (prebiotic properties), Support a healthy immune system: supplements- selenium, Vitamin D, Vitamin B6, etc. c) Commercial benefits: Opportunities to high income generation. Other uses, become a base construction material, for example, mycelium composites have customizable material properties based on their composition and manufacturing process and can replace, building blocks/mushroom bricks, foams, timber, and plastics for applications, such as insulation, door cores, panelling, flooring, cabinetry, and other furnishings. d) Employment generation: Since it requires simple technology, little labour, investment, and space, it gives chances of employment for the people, particularly, it can empower women of

low income and less educated. In addition, it does not require high-end instruments or expensive chemicals and know-how. Cultivation can be done at home and can be scaled. The workshop provided the students with hands-on experience and ended up with the good interactive session which had good number of queries from students and faculty. The session ended with whole-hearted thanks speech delivered by Dr. Pramod Prakash Desai, Assistant Professor, Dept. of Biotechnology and Genetics. The feedback form link was sent to students to understand the benefit of the lecture gained by them. After the formal event, practical demonstration of Mushroom Cultivation was provided by M.Sc.-BT Students, Ms Bhuvana Prashanth, Ms Madhura MR, Ms Anushakumari R, and Ms Chandana TJ. Besides the students showed the mushroom blossom which was a real time fest for the eyes.

Vatsala<sup>4</sup>.  
31/07/24.

Principal  
M.S.Ramaiah College of Arts, Science &  
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MSRIT POST, MSR Nagar  
Bengaluru - 560 054

**Glimpses of Workshop**



1) Dignitaries seated on the dais 2) Address by Vatsala G., Principal, MSRCASC  
3) Introduction of the resource person by Dr. Radha Dayanidhi 4) Dr. Channarayappa delivering the lecture 5) & 6) BSc students witnessing the mushroom cultivation of MSc student

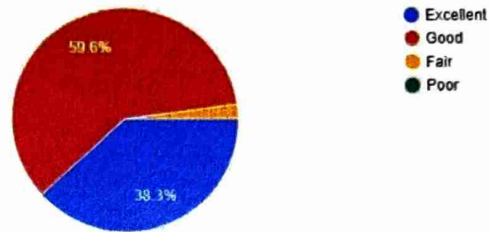


7) Sterilization of straw 8) Drying if Straw 9) Wrapping the straw with mushroom spawning 10) Sorting out the straw 11) Mushroom spawning in the polythene covers

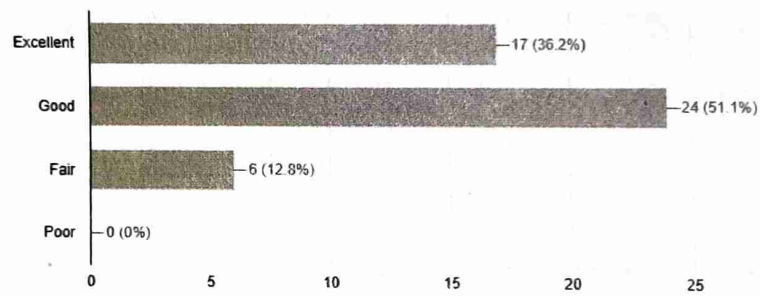


## Feedback analysis

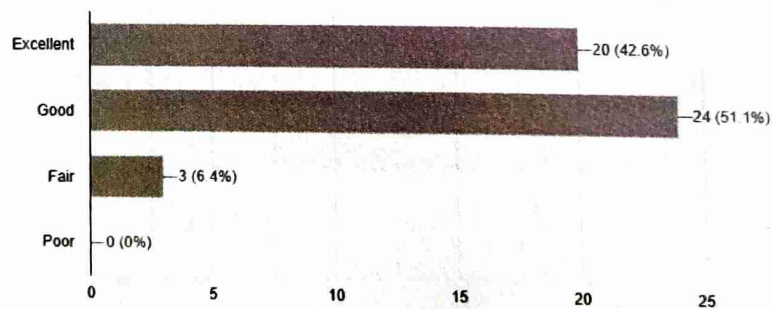
1. Speaker was able to explain the topic clearly and used relevant examples



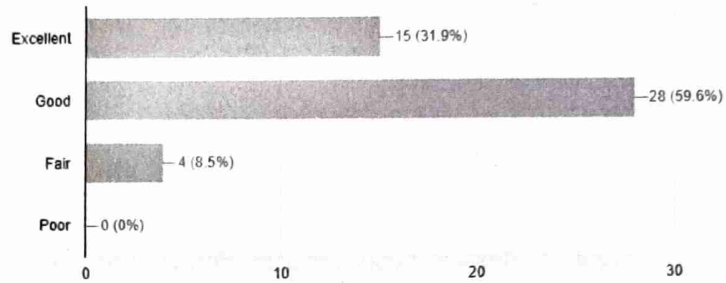
2. Speaker was able to make the lecture interactive



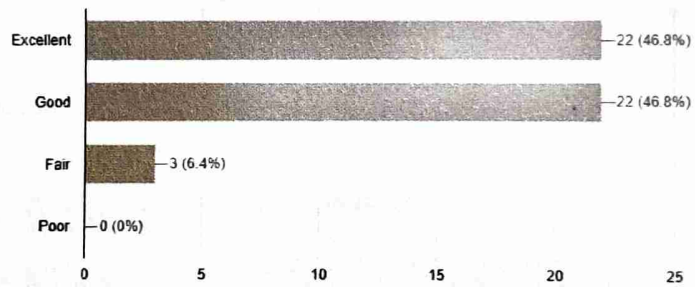
3. Points presented in logical easy-to-follow sequence



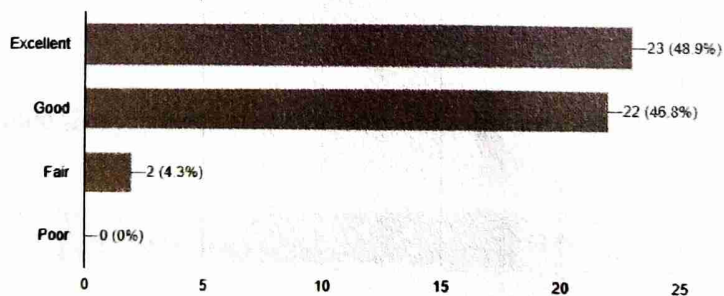
4. Terminology and the degree of technical detail suitable to this audience



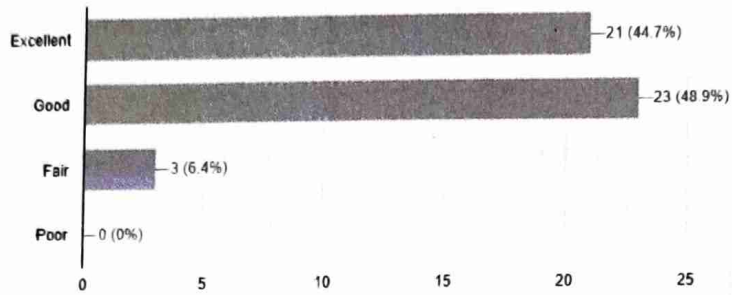
5. Relevance of material to topic set



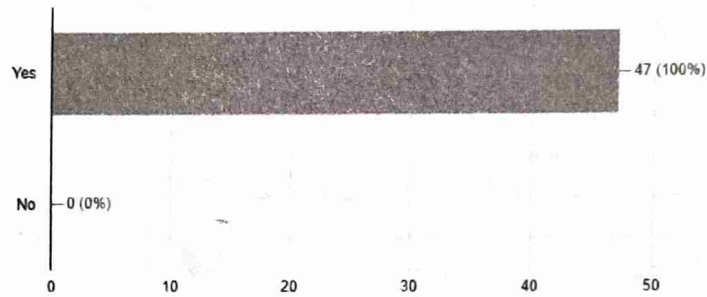
6. The presentation indicates the speaker's knowledge and understanding of the subject was



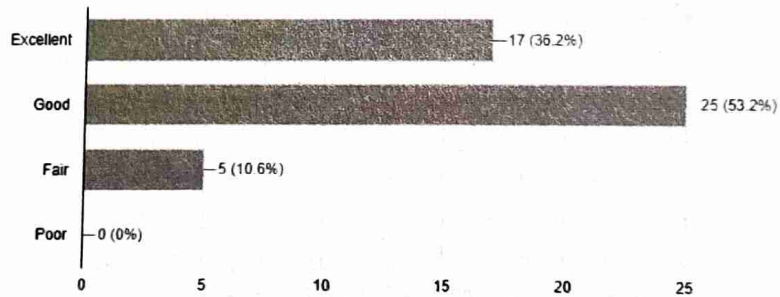
7. Did the speaker answer the questions well, giving concise and informative replies



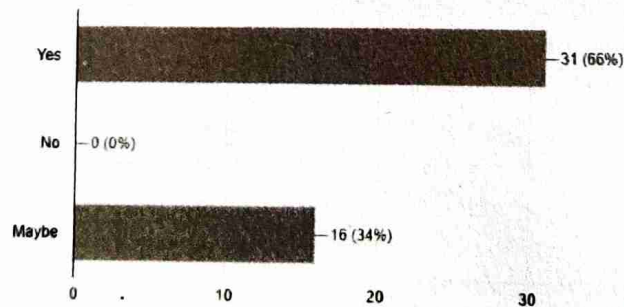
8. Speaker was able to positively influence my views towards the topic



9. Verbal-communication



10. In near future, I would like to attend more lectures from the same speaker



Valsala Y.  
 31/03/24  
 Principal  
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**DEPARTMENT OF BIOTECHNOLOGY AND GENETICS**  
**1ST YEAR BSc (BIOTECHNOLOGY/CHEMISTRY/MICROBIOLOGY)**  
**Academic Year 2024-25 B SECTION**

**Workshop on "Mushroom farming, research innovation and marketing strategies"**  
**Attendance List 30-07-2024** **Kuvempu Seminar Hall**

| SI No | Name of the student     | Signature           |
|-------|-------------------------|---------------------|
| 1     | MAYUR RAJ T S           | Mayur Raj T S       |
| 2     | MOHAMMED NAUMAN SHAREEF | M.N. Shareef        |
| 3     | N D CHIRAG              | Chirag              |
| 4     | NEHA ALI                | Neha                |
| 5     | NIKHIL S JAIN           | Nikhil S            |
| 6     | NIKITA SAGAR            | Nikita Sagar        |
| 7     | NISHIKANTA SINGH        | Nishikanta Singh    |
| 8     | NISREEN                 | Nisreen             |
| 9     | NIVEDHYA                | Nivedhya            |
| 10    | NOORAIN FATHIMA         | Fathima             |
| 11    | PAVAN KISHOR M          | Pavan Keshor. M.    |
| 12    | PAVAN KUMAR A           | Pavan Kumar A       |
| 13    | PRATIKSHA G P           | Pratishha           |
| 14    | PRAVEEN KUMAR A N       | Praveen             |
| 15    | PRIYANKA K M            | Priyanka K M        |
| 16    | PUNITH B J              | Punith B J          |
| 17    | RACHANA S               | Rachana             |
| 18    | RANITA N LOUIS          | Ranita              |
| 19    | RANJITHA SURESH         | Ranjitha S.         |
| 20    | RIKISHA J               | Rikisha J.          |
| 21    | RISHITHA M REDDY        | Rishitha M Reddy    |
| 22    | RITHIKA V               | Rithika V           |
| 23    | ROHIT SHARMA            | Rohit Sharma        |
| 24    | RUPOSHREE CHAKRABORTY   | Ruposhree           |
| 25    | SALOME KISKU            | Salome Kisku        |
| 26    | SANIDHYA C              | Sanidhya            |
| 27    | SANJUKTA PATTANAYAK     | Sanjukta Pattanayak |
| 28    | SASHWAT SINGH           | Sashwat             |
| 29    | SEJAN ALI               | Sejan               |
| 30    | SHARON B PAUL           | Sharon B Paul       |
| 31    | SHASHIDHAR T M          | Shashidhar T M      |
| 32    | SHREE VARSHA S          | Shree Varsha S      |
| 33    | SHREYA R                | Shreya R            |
| 34    | SHRINIDHI PATIL         | Shrinidhi           |
| 35    | SHRUTHIKA R             | Shruthika R         |
| 36    | SIBANGI SARKAR          | Sibangi Sarkar      |
| 37    | SMRUTHI RAJIV           | Smruthi Rajiv       |
| 38    | SOHA KHAN               | Sohakhan            |

|    |                              |              |
|----|------------------------------|--------------|
| 39 | SUJAN                        | Sujan        |
| 40 | SUMEDHA S MARATHE            | Sumedha      |
| 41 | SYED FOUZAN                  | Syeda        |
| 42 | T M BALAJI                   | TM           |
| 43 | TANEEZ AFREEN                | Tanmayee     |
| 44 | TANMAYEE S                   | Tanmayee-S   |
| 45 | THEJASWINI C N               | Thejaswini   |
| 46 | THRUPTHI LAAD                | Thrupthi     |
| 47 | TITIKSHA SINHA               | Titiksha     |
| 48 | VARSHA GIRISH                | Varsha       |
| 49 | VARSHITHA N                  | Varshitha    |
| 50 | VIEBHAA P                    | Viebhaa      |
| 51 | YASHAS M                     | Yashas M     |
| 52 | YASHAWANTHA B B              | yashwanth BB |
| 53 | YELLALA PRANEETH KUMAR REDDY | Praneeth     |
| 54 | YOJANA M                     | Yojana       |
| 55 | YUKTHA M P                   | Yuktha - M.P |

56 A. Krishna Samyuktha

A. Samyuktha

57 Deepa.R

Deepa

58 A G Ketan

Ketan

Vatsala

Principal  
M.S.Ramaiah College of Arts, Science &  
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MSRIT POST, MSR Nagar  
Bengaluru - 560 054


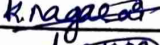


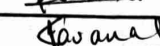







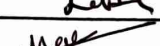

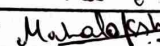
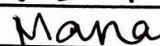

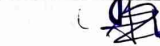

**M S RAMAIAH COLLEGE OF ARTS, SCIENCE & COMMERCE BANGALORE**  
**DEPARTMENT OF BIOTECHNOLOGY AND GENETICS**  
**1ST YEAR BSc (BIOTECHNOLOGY/CHEMISTRY/MICROBIOLOGY)**  
**Academic Year 2024-25 A SECTION**

Attendance List 30-07-2024

Kuvempu Seminar Hall

Workshop on "Mushroom farming, research innovation and marketing strategies"

| Sl No | Name of the student         | Signature                   |
|-------|-----------------------------|-----------------------------|
| 1     | A G KETAN                   |                             |
| 2     | AISHWARYA H REDDY           |                             |
| 3     | AKRITI SINHA                | Akriti Sinha                |
| 4     | AKSHAYA N                   | Akshaya N                   |
| 5     | AMAN RAJ                    | Aman Raj                    |
| 6     | AMRUTHA M E                 | Amrutha M E                 |
| 7     | ANANNYA SARKAR              | Anannya Sarkar              |
| 8     | ANISHA M                    | Anisha M                    |
| 9     | ANKIT SAHANI                | Ankit Sahani                |
| 10    | ANKITA N                    | Ankita N                    |
| 11    | ANKITHA G                   | Ankitha G                   |
| 12    | ANUSHA L                    | Anusha L                    |
| 13    | ANUSHA N                    | Anusha N                    |
| 14    | ASHMITA DATTA               | Ashmita Datta               |
| 15    | BHARATHI V                  | Bharathi V                  |
| 16    | BHAVYA SINGH                | Bhavya Singh                |
| 17    | BHUMIKA M                   | Bhumika M                   |
| 18    | C AKSHAY                    | C Akshay                    |
| 19    | CHARAN B S                  | Charan B S                  |
| 20    | CHASMITHA M S               | Chasmitha M S               |
| 21    | CHETHAN KUMAR S B           | Chethan Kumar S B           |
| 22    | CHODIGINJALA CHARISHMA      | Chodiginjala Charishma      |
| 23    | D V NITHYA                  | D V Nithya                  |
| 24    | DEB SHARMA                  | Deb Sharma                  |
| 25    | DEBANJANA SARKAR            | Debanjana Sarkar            |
| 26    | DEDEEPYAMAN GOGOI           | Deedee Pyaman Gogoi         |
| 27    | DEEKSHA N                   | Deeksha N                   |
| 28    | DISHA N                     | Disha N                     |
| 29    | DRUTI V                     | Druti V                     |
| 30    | G DIVYA                     | G Divya                     |
| 31    | G K VARSHA                  | G K Varsha                  |
| 32    | GAGAN KUMAR R               | Gagan Kumar R               |
| 33    | GOUTHAM YADHAV Y            | Goutham Yadhav Y            |
| 34    | HANCIKA G                   | Hancika G                   |
| 35    | HARINI S                    | Harini S                    |
| 36    | HARSHITHA K S               | Harshitha K S               |
| 37    | HEMAL L KHARADE             | Hemal L Khare               |
| 38    | HUSN ARA F                  | Husn Ara F                  |
| 39    | JAHNVI R                    | Jahnvi R                    |
| 40    | JANHAVI GOWDA               | Janhavi Gowda               |
| 41    | JAVARESHEVAR A              | Javareshevar A              |
| 42    | JIGARGAR PARSHOTAMGAR GUSAI | Jigargar Parshotamgar Gusai |

|    |                                      |   |
|----|--------------------------------------|---|
| 43 | JYOTHI S                             |  |
| 44 | K NAGA SAI                           |  |
| 45 | K R ANANYA                           |  |
| 46 | K V SREE LAKSHMI                     |  |
| 47 | KARUNA S PUROHIT                     |  |
| 48 | KAVANA S                             |  |
| 49 | KEERTHANA CHALLAPALI                 |  |
| 50 | KHALIFA MOHAMMEDKHALID<br>ABDULKADAR |  |
| 51 | KHWAISH BHATIA                       |  |
| 52 | KORI SIDDU GOUDA                     |  |
| 53 | KREERTHANA H                         |  |
| 54 | KRUPA R                              |  |
| 55 | LEKHANA S P                          |  |
| 56 | MADHAV KUMAR K                       |  |
| 57 | MADIHA HANIEF BHATT                  |  |
| 58 | MAHALAKSHMI P                        |  |
| 59 | MANASA M                             |  |
| 60 | MANJIRA DEY                          |  |
| 61 | Arushka Bansal                       |  |

Valsala Y

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**DEPARTMENT OF BIOTECHNOLOGY AND GENETICS**  
**1ST YEAR BSc (GENETICS/BIOCHEMISTRY/MICROBIOLOGY)**  
**Academic Year 2024-25 C SECTION**

Workshop on "Mushroom farming, research innovation and marketing strategies"  
Attendance List 30-07-2024 Kuvempu Seminar Hall

| Sl No | Name of the student        | Signature   |
|-------|----------------------------|-------------|
| 1     | AADISHREE V MUDAKAVI       | Aadishree   |
| 2     | ANANYA S                   | Ananya S    |
| 3     | ANIL KUMAR K               | Anil        |
| 4     | ANUSHKA DAYANAND GAJBHARE  | Anushka     |
| 5     | ARUSH N CHOUDHURY          | Arush       |
| 6     | BALAJI GOWDA J K           | Balaji      |
| 7     | HANNAH SURESH              | Hannah      |
| 8     | IKSHITA BHAT               | Ishita      |
| 9     | JAMADARKHAN VIJAYA VARDHAN | M           |
| 10    | K S SMARAN                 | Smaran      |
| 11    | KAVYA V                    | Kavya       |
| 12    | LEKHANA C                  | Lekhana.c.  |
| 13    | MADHUMITHA ASHOK KUMAR     | Madhu       |
| 14    | MADHURISH KUMAR            | Madhuresh   |
| 15    | MAITHRI S                  | Maithri S   |
| 16    | MUTTAHIRA NOORAIN          | Muttahira   |
| 17    | MYSER TASKEEN              | Mysar       |
| 18    | PADMAJA BISWAL             | Padma       |
| 19    | POOJALAKSHMI K S           | Pooja       |
| 20    | PRACHI PANDEY              | Prachi      |
| 21    | PRAJWAL GOWDA M V          | Prajwal     |
| 22    | RAJNITA DEY                | Rajni       |
| 23    | SANCHITHA N                | Sanchitha N |
| 24    | SANDHYA GURU NAYAK         | Sandhya     |
| 25    | SANTOSH KUMAR DALAI        | Santosh     |
| 26    | SAYANTIKA GARAI            | Sayantika   |
| 27    | SHAMBHAVI K CHAITHANYA     | Shambhavi   |
| 28    | SHERIN JENIFER S           | Sherin      |
| 29    | SHRUTHI K H                | Shruthi     |
| 30    | SINCHANA K                 | Sinchana    |
| 31    | SMRUTHI NAGESH             | Smruthi     |
| 32    | SNEHA GONAL                | Sneha       |
| 33    | SNEHA SRIDHAR              | Sneha       |
| 34    | SYED ISHRAT HANI           | Syed        |
| 35    | VARSHA N                   | Varsha      |
| 36    | VARSHITHA N                | Varshitha N |



37

YASHIKA N

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Vatsala-9

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