

**Certificate Course : Mushroom Cultivation Technology**

**Year 2021-2022**

To be submitted to the

**AWAHAR ARTS SCIENCE & COMMERCE COLLEGE  
ANDUR**

*Tq. Tuljapur Dist. Osmanabad*

Submitted by

Course Co-ordinator

**Dr. D. S. Suryawanshi**

**Professor & Head Department of Botany**

**Jawahar Arts Science & Commerce College Andur**

**Tq. Tuljapur Dist. Osmanabad**

**November- 2021**



**Shikshan Prasarak Mandal, Anadur's  
Jawahar Arts, Science & Commerce College,  
Anadur, Tq. Tuljapur, Dist- Osmanabad -413603  
Department of Botany**

Date: - 02/07/2021

**Notice**

All the faculty members of Botany Department are hereby informed that a meeting of our department will be held on day 02 / 07 / 2021 under the chairmanship of our head Dr. D. S. Suryawansi to discuss the following agenda. So everyone should attend on time.

**Agenda for meeting:**

1. To read and confirm the Proceeding of last meeting.
2. To read and confirm the certificate course.
3. To discuss and design the stricter of certificate course.
4. To prepare and frame the syllabus of certificate course.
5. To formulate the BOS.
6. To prepare the Time-Table of certificate course.
7. To conduct other activities regarding the course.
8. Timely topics with the permission of chairperson.

**PRINCIPAL**  
Jawahar Arts, Science & Commerce  
College, Anadur,  
Tal. Tuljapur, Dist. Osmanabad.

**HOD**  
Head Department of Botany  
Jawahar College Anadur,  
Tal. Tuljapur, Dist. Osmanabad



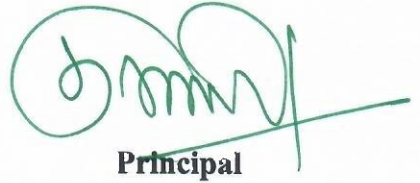
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Jawahar Arts, Science & Commerce College,  
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Department of Botany**

**Proceeding of Botany Departmental Meeting**

Today 03/07/2021 a meeting was held in department of chemistry under the chairperson Dr. D. S. Suryawanshi (HOD). In this meeting discussion made on how to conduct the certificate course **Mushroom Cultivation Technology**. All faculties are unanimously agreed to run this certificate course for all UG students. Discussion was successful regarding to construct the syllabus, timetable, the nature of Question paper and the said course admission form. All faculties assured each other to give healthy contribution for running this course and all other efforts needed. Finally all faculties are firmly decided to construct the syllabus, timetable, sample question paper and admission form and to convey to Hon. Principal for further approval from College Development committee.

- DSS- Dr. D. S. Suryawanshi
- KDA- Mrs .D. A. Kalshetti
- BPS- Mrs. Bhale P. S.

  
Head Department of Botany  
Jawahar College Andur,  
Tal. Tuljapur, Dist. Osmanabad



**Principal**

**Principal**  
Jawahar Arts, Science & Commerce College  
Anadur Tal. Tuljapur, Dist. Osmanabad.





**Shikshan Prasarak Mandal, Anadur's  
Jawahar Arts, Science & Commerce College,  
Anadur, Tq. Tuljapur, Dist- Osmanabad -413603  
Department of Botany**

Date: 04/08/2021

To,

Principal,

JASC College, Anadur.

Tq. Tuljapur, Dist. Osmanabad.

Sub: To get the permission to Botany department to conduct the certificate course in **Mushroom Cultivation Technology** for academic year 2021-2022. Dear Sir, With reference to above cited subject I am kindly informing you that a departmental meeting of Botany was held on date 04/08/2021, in this meeting all faculty are unanimously decided to conduct a certificate course in **"Mushroom Cultivation Technology"** during this academic year 2021-2022.

In this meeting we all faculty also make a action plan to run this certificate course with all necessary formalities. So we all the Botany faculty are requesting to you give us approval for said courses.

Attached:

- ✓ Departmental proceeding
- ✓ Time-Table
- ✓ Syllabus
- ✓ Question Paper Pattern
- ✓ Admission form

**Mrs .D. A. Kalshetti  
Mrs. Bhale P. S.**

Head

  
Dr. . D. S. Suryawanshi

Head Department of Botany  
Jawahar College Andur,  
Tal. Tuljapur, Dist. Osmanabad



Principal

Jawahar Arts, Science & Commerce College  
Anadur, Tal. Tuljapur, Dist. Osmanabad.

Head Department of Botany  
Jawahar College Andur,  
Tal. Tuljapur, Dist. Osmanabad



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Jawahar Arts, Science & Commerce College,  
Anadur, Tq. Tuljapur, Dist- Osmanabad -413603  
Department of Botany

Date: 18/08/2021

To,  
The Head,  
Department of Botany  
Jawahar ASC College, Anadur,  
Tq. Tuljapur, Dist. Osmanabad.

**Subject: Approval to conduct the certified course for students of science.**

As per the decision taken in College Development Committee, you are directed to conduct the Certificate course in **Mushroom Cultivation Technology** in your department for the students of our college. The course should be of 30 hours and be conducted in the academic year 2021-2022.

Convey your timetable of the said course to the timetable committee so as to avoid any overlapping of lecturers.

**Principal**  
Jawahar Arts, Science & Commerce College  
Anadur Tal. Tuljapur, Dist. Osmanabad.



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Anadur, Tq. Tuljapur, Dist- Osmanabad -413603  
Department of Botany**

Date: 23/08/2021

**Notice**

All the students of science faculty are hereby informed that the Department of Botany is going to conduct a value added / skill based certificate course on "**Mushroom Cultivation Technology**" during this academic year 2021-2022 from 01 / 09 / 2021 to 30 / 09 / 2022 (30 hours).

The interested students may enroll their name with Mr. Namdev Kale at department of Botany before 30 / 08 / 2021

  
Co-coordinator

  
Head  
Head Department of Botany  
Jawahar College Andur,  
Tal. Tuljapur, Dist. Osmanabad

  
Principal  
Principal  
Jawahar Arts, Science & Commerce College  
Anadur, Tal. Tuljapur, Dist. Osmanabad.



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Department of Botany

Jawahar Arts, Science & Commerce College, Anadur

Department of Botany

Certificate Course on Mushroom Cultivation Technology Student registration form  
( 2021-2022 )

Name of Student: Pati Abheshk Shrestha

Class and Roll No: B-sc. I - AA-01

Contact No: \_\_\_\_\_

Email address: \_\_\_\_\_

Corresponding Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Pati A.  
Signature of Student

[Signature]  
Co-coordinator

[Signature]  
Head  
head Department of Botany  
Jawahar College Anadur,  
Tal. Tuljapur, Dist. Osmanabad

[Signature]  
Principal  
Principal  
Jawahar Arts, Science & Commerce College  
Anadur, Tal. Tuljapur, Dist. Osmanabad.





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Anadur, Tq. Tuljapur, Dist- Osmanabad -413603**

**Department of Botany**


**Jawahar Arts, Science and Commerce College, Andur**

**Add on Course on Mushroom Cultivation Technology**

**Enrollment List of Students 2021-2022**

Sr. No	Roll Number	Name of Student	Class
1	AA-01	Patil Abheshek Shrishal	B. Sc. I
2	AA-02	Ku. Patil Sanika Satteshwer	B. Sc. I
3	AA-03	Patil Vihar Vikrant	B. Sc. I
4	AA-04	Pawar Vikash Raju	B. Sc. I
5	AA-05	Ku. Pawar Rutuja Gopal	B. Sc. I
6	AA-06	Pawar Sachin Teju	B. Sc. I
7	AA-07	Pawar Satish Gopichand	B. Sc. I
8	AA-08	Rajmane Kalleshwer Nagnath	B. Sc. I
9	AA-09	Rajmane Samarth Maruti	B. Sc. I
10	AA-10	Rathod Mayur Sanjay	B. Sc. I
11	AA-11	Rathod Rutik Rajendra	B. Sc. I
12	AA-12	Ku. Rathod Shilpa Subhash	B. Sc. I
13	AA-13	Rathod Shrihari Subhash	B. Sc. I
14	AA-14	Ku. RathodVaishanvi Bankat	B. Sc. I
15	AA-15	Rathod Vishal Vitthal	B. Sc. I
16	AA-16	Sakhare Harshad Hanumant	B. Sc. I
17	AA-17	Ku. Shaikh Najmin Jinda	B. Sc. I
18	AA-18	Ku. Shaikh Reshama Sattar	B. Sc. I
19	AA-19	Shaikh Sohel Gafar	B. Sc. I
20	AA-20	Ku. Shriramoj Snehal Shrinivas	B. Sc. I
21	AA-21	Ku. Sontakke Sneha Narayan	B. Sc. I
22	AA-22	Survase Mahesh Shesherao	B. Sc. I
23	AA-23	Surywansee Prasenjeet Buddbhushan	B. Sc. I
24	AA-24	Ku. Sutar Shubhangi Mahadev	B. Sc. I
25	AA-25	Swami Shankarling Mallaya	B. Sc. I

  
Head Department of Botany  
Jawahar College Andur,  
Tal. Tuljapur, Dist. Osmanabad

  
Principal  
Jawahar Arts, Science & Commerce College  
Anadur, Tal. Tuljapur, Dist. Osmanabad





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Department of Botany

**Notice**


All the students enrolled in certificate course in **Mushroom Cultivation Technology** run by department of Botany are hereby informed that the Department of Botany is going to conduct a final test on "**Mushroom Cultivation Technology**" during this month on

**Time-Table for Exam 2021-2022**

Sr. No	Roll. Number	Name of Student	Hall Number
1	AA-01	Patil Abheshek Shrishal	16
2	AA-02	Ku. Patil Sanika Satteshwer	
3	AA-03	Patil Vihar Vikrant	
4	AA-04	Pawar Vikash Raju	
5	AA-05	Ku. Pawar Rutuja Gopal	
6	AA-06	Pawar Sachin Teju	
7	AA-07	Pawar Satish Gopichand	
8	AA-08	Rajmane Kalleshwer Nagnath	
9	AA-09	Rajmane Samarth Maruti	
10	AA-10	Rathod Mayur Sanjay	
11	AA-11	Rathod Rutik Rajendra	16
12	AA-12	Ku. Rathod Shilpa Subhash	
13	AA-13	Rathod Shrihari Subhash	
14	AA-14	Ku. Rathod Vaishanvi Bankat	
15	AA-15	Rathod Vishal Vitthal	
16	AA-16	Sakhare Harshad Hanumant	
17	AA-17	Ku. Shaikh Najmin Jinda	
18	AA-18	Ku. Shaikh Reshama Sattar	
19	AA-19	Shaikh Sohel Gafar	
20	AA-20	Ku. Shriramoj Snehal Shrinivas	
21	AA-21	Ku. Sontakke Sneha Narayan	
22	AA-22	Survase Mahesh Shesherao	
23	AA-23	Surywansee Prasenjeet Buddbushan	
24	AA-24	Ku. Sutar Shubhangi Mahadev	
25	AA-25	Swami Shankarling Mallaya	

  
Co-coordinator

  
Head Department of Botany  
Jawahar College Andur,  
Tal. Tuljapur, Dist. Osmanabad.

  
Principal  
Jawahar Arts, Science & Commerce Coll  
Anadur, Tal. Tuljapur, Dist. Osmanabad  
Principal  
Head Department of Botany  
Jawahar College Andur,  
Tal. Tuljapur, Dist. Osmanabad



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**Syllabus of Certificate Course in "Mushroom Cultivation Technology"**

Module 1: Introduction to mushrooms (2 hours).

Mushrooms -Taxonomical rank -History and Scope of mushroom cultivation - Edible and Poisonous Mushrooms-Vegetative characters.

Module 2: Common edible mushrooms (2 Hours).

Button mushroom (*Agaricusbisporus*), Milky mushroom (*Calocybeindica*), Oyster mushroom (*Pleurotussajorcaju*) and paddy straw mushroom (*Volvariellavolvcea*).


Module 3: Principles of mushroom cultivation (8 Hours) Structure and construction of mushroom house. Sterilization of substrates. Spawn production - culture media preparation- production of pure culture, mother spawn, and multiplication of spawn. Composting technology, mushroom bed preparation. Spawning, spawn running, harvesting. Cultivation of oyster and paddy straw mushroom. Problems in cultivation - diseases, pests and nematodes, weed moulds and their management strategies.

Module 4: Health benefits of mushrooms(2 Hours).

Nutritional and medicinal values of mushrooms. Therapeutic aspects- antitumor effect.

Module 5: Post harvest technology: (4 Hours).

  
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Preservation of mushrooms - freezing, dry freezing, drying, canning, quality assurance and entrepreneurship. Value added products of mushrooms.

Module 6: Training/ Workshop/ Field visit(12 Hours) Sterilization and sanitation of mushroom house, instruments and substrates Preparation of mother culture, media preparation, inoculation, incubation and spawn production Cultivation of oyster mushroom using paddy straw/agricultural wastes.

### Introduction

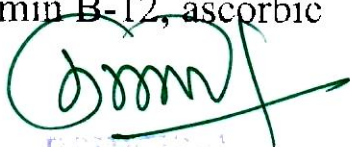
The term mushroom means in general a fungus but commonly it is the fruiting body of some fungi which produce and disseminate spores. Like all other fungi, they lack chlorophyll and thus cannot produce their own food. They grow saprophytically or sometimes symbiotically upon other dead and living plants respectively to obtain organic matter of food.

Mushrooms are variable in size and shape. Many have caps and stalk. Some varieties even produce fruit bodies below the ground. There are large number of species growing wild in nature, while many are edible, some are highly poisonous.

The collection of colourful and variety of shapes of mushrooms is in practice since time immemorial. Auricularia, Lentinusedodius, Agaricus is porus and volvariellavolvacea were collected in china and France and elsewhere in world. In India they have started to cultivate mushroom from 1943.


Mushrooms are popular for their delicacy and flavour. They are excellent source of vitamin, protein and minerals. They are good source of vitamin B, folic acid, the blood building vitamin, useful in anaemic condition. They also contain pantothenic acid, vitamin B-12, ascorbic

  
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acid and precursor of vitamin A & D. They are good source of phosphorus, potassium and iron, copper contain essential amino acid.

  
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Department of Botany

This Course is included Theory classes, field visit assignment,  
Practical's


Course structure & Examination Scheme

Course name	Contact classes ( hours )	Laboratory experiment ( hours )	Theory Marks	Practical Marks		Total Marks
				Practical	Viva-voce	
Mushroom Cultivation Technology	15	15	50	40	10	100

  
Co-ordinator

(Dr. D. S. Suryawanshi )

  
Head of Department, Botany  
Jawahar College Andur,  
Tal. Tuljapur, Dist. Osmanabad

  
Principal  
Jawahar Arts, Science & Commerce College  
Anadur, Tal. Tuljapur, Dist. Osmanabad



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Jawahar Arts, Science & Commerce College,  
Anadur, Tq. Tuljapur, Dist- Osmanabad -413603  
Department of Botany**

Ref.No.JASC/Chem/Syll/BOS/2021-2022/

Date: 23/07/2021

To,

1} Dr. D. S. S. Suryawanshi

2} Dr. Dr. S. R. Biradar

Ad-hoc Board in Botany

Ad-hoc Board in Botany

JASC College, Anadur,

BSS College, Makani

Tq. Tuljapur, Dist. Osmanabad

Tq. Lohara, Dist. Osmanabad.

Mob: 9511770582

Mob: 9284313450

3} Mrs. D. A. Kalshetti

4} Mrs. P.S. Bhale

Ad-hoc Board in Botany

Ad-hoc Board in Botany

JASC College, Anadur,

ASC. College. Anadur

Tq. Tuljapur, Dist. Osmanabad.

Tq. Tuljapur, Dist. Osmanabad

Mob: 8237171931

Mob: 9511704929

**Subject: Constitution of Ad-hoc Board in Botany (Certificate Courses-Soil & Water Analysis)**

Sir/Madam,

I am to inform your that the Hon'ble Principal is pleased to nominate you as a Member/Chairman on the Ad-hoc Board in Botany for this previous year 2018-2019 as per provision statute-159 of the university act. While requesting you to accept this invitation to work on the Ad-hoc Board. I do realize your busy moments in your own field. Yet in view of your expertise in the subject. I shall be thankful if you accept the membership of the Ad-hoc Board for enriching the academic standards of the university through your valuable contribution.

Your appointment shall be governed by and subject to the provisions of the Maharashtra Public University Act, 2016 as amended from time to time. Kindly communicate your acceptance at the earliest.

  
Head Department of Botany  
Jawahar College Anadur,  
Tal. Tuljapur, Dist. Osmanabad

  
Principal  
Jawahar Arts, Science & Commerce College  
Anadur, Tal. Tuljapur, Dist. Osmanabad.





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Department of Botany**

**Jawahar Arts, Science and Commerce College, Anadur**

**Add on Course on Mushroom Cultivation Technology**

**Theory Time Table – 2021-2022**

Lecture	Time	Monday	Tuesday	Wednesday	Thursday	Friday
I	03.00 to 04.00	DSS	KDA	BPS	DSS	KDA
II	04.00 to 05.00	DSS	KDA	BPS	DSS	BPS
III	05.00 to 06.00	DSS	KDA	BPS	DSS	DSS

**Practical Time Table – 2021-2022**

Time	Monday	Tuesday	Wednesday	Thursday	Friday
03.00 to 04.30	DSS	KDA	BPS	KDA	DSS
04.30 to 06.00	DSS	KDA	BPS	KDA	DSS

**List of Faculty Contributing for this Course**

- DSS- Dr. D. S. Suryawanshi
- KDA- Mrs .D. A. Kalshetti
- Mrs. Bhale P. S.

  
head Department of Botany  
Jawahar College Andur,  
Tal. Tuljapur, Dist. Osmanabad

  
**PRINCIPAL**  
Jawahar Arts, Science & Commerce  
College, Anadur,  
Tal. Tuljapur, Dist. Osmanabad.



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Department of Botany

Date: 31/08/2021

**BOS Meeting Proceeding**

As per requested all BOS member are gathered together to discuss regarding the syllabus of certificate course in **Mushroom Cultivation Technology** going to conduct by department of Botany during the academic year 2021-2022. In this meeting under the chairperson of head of department Dr. D.S.Suryawanshi, discussion made on designing syllabus as well as how to implement the said course smoothly and fruitful. All members put their view and finally decided the syllabus, duration of one month regular with day to day activities. After vote of thanks expressed by Mrs. D.A. Kalshetti the said meeting is over.

  
Dr. S. R. Biradar

  
Mrs. D. A. Kalshetti

  
Mrs. Bhale P. S.

Head

  
Dr. D. S. Suryawanshi

Head Department of Botany  
Jawahar College Andur,  
Tal. Tuljapur, Dist. Osmanabad

  
Principal

Principal  
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**Department of Botany**

**Conducting Co-curricular course**

**“Mushroom Cultivation Technology”**

1. Name of Department: **Botany**
2. Type of Programme: **value added / skill based certificate course**
3. Title of Programme: **Certificate course in  
“Mushroom Cultivation Technology”**
4. Name of Co-ordinator: **Dr. . D. S. Suryawanshi**
4. Faculty offered: **B.Sc. I**
5. Name of Teachers: **Mrs .D. A. Kalshetti  
Mrs. Bhale P. S.**
6. Duration: **30 hours**
7. Theory: **15 Hours**
8. Practical: **15 Hours.**

**Head**

*Suryawanshi*  
Head Department of Botany  
Jawahar College Andur,  
Tal. Tuljapur, Dist. Osmanabad

**Principal**

**Principal**

Jawahar Arts, Science & Commerce College  
Anadur, Tal. Tuljapur, Dist. Osmanabad





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Department of Botany

Add on Course on "Mushroom Cultivation Technology"

Question Paper – 2021-2022

Date: 30/09/2021


All questions are necessary

Each Ques. Carry 2 marks.

Total Marks: 50

1. \_\_\_\_\_ is known as temperature tolerant white button mushroom.  
a. Agaricus b. Pleurotus c. Volvariella d. Agaricus bitorquis
2. Agaricus bisporus belongs to family \_\_\_\_\_.  
a. Agaricaceae b. Malvaceae c. Rubiaceae d. Solanaceae
3. Basidiospores are \_\_\_\_\_ spores.  
a. exogenous b. endogenous c. Both a and b d. None of these
4. \_\_\_\_\_ toxin is present in Amanita muscaria.  
a. Ibotenic acid b. Lactic acid c. Acetic acid d. All of the above
5. \_\_\_\_\_ is known as 'king oyster mushroom'.  
a. Pleurotus eryngii b. Volvariella c. Agaricus d. None of the above
6. Formaldehyde is used as \_\_\_\_\_ in mushroom cultivation.  
a. Disinfectant b. Fertilizer c. Insect repellent d. Food material
7. Short method of button mushroom compost preparation requires \_\_\_\_\_ days.  
a. 14-18 days b. 10 days c. 20 days d. 30 days
8. What is the other name of Mushroom?  
a. Funaria b. Dryopteris c. Agaricus d. Ficus

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9. To which division does it belong?  
 a. Basidiomycetes b. Pteridophyta c. Thallophyta d. Mollusca
10. Mushroom is:  
 a. Saprophytic fungus b. Autotrophic Algae c. Heterotrophic fungus d. None of the above
11. Mycellium produces white or colored umbrella shaped fruiting bodies called:  
 a. Haphae b. Basidiocarp c. Annalus d. Seta
12. Basidiocarp consist of a fleshy stalk called \_\_\_\_\_ and umbrella like head borne on its top called \_\_\_\_\_  
 a. Hyphae and Seta b. Seta and Annalus c. Annalus adn Antheridia d. Stipe and Pileus
13. When young fruiting body is completely enveloped by a thin membrane, it is called  
 a. Mycelium b. Rhizoids c. Velum(veil) d. Septate
14. With the growth of \_\_\_\_\_ velum gets ruptured, while a part of it remained attached to stipe in the form of ring or \_\_\_\_\_.  
 a. Basidiocarp and Slender b. Pileus and Annalus c. Pyrenoid and Conjugation d. Hyaline and Pyrenoid
15. On the lower side of Pileus number of vertical plates like structure are present called \_\_\_\_\_  
 a. Spores b. Organelles c. Mushroom Dryopteris d. Gills
16. The gills on either sides bear club shaped basidia which produce \_\_\_\_\_  
 a. Basidiocarp b. Chloroplasts c. funaria d. None of these
17. It grows during \_\_\_\_\_  
 a. Summer season b. Winters c. Rainy season d. In all seasons
18. What is a symptom of mushroom poisoning?

  
 Head Department of Botany  
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 Tal. Tuljapur, Dist. Osmanabad.

a. Mild nausea b. Vomiting c. Diarrhea d. All of the Above


19. Mushrooms are fruit. Do you know what kind of fruit they are?

a. Mold b. Fungus c. Blackberry d. Cherry

20. What kind of equipment do you need to go mushrooming?

a. flat-bottomed basket or box b. A roll of waxed paper c. A digging tool d. All of the Above

  
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Department of Botany**

**Jawahar Arts, Science and Commerce College, Anadur**


**Add on Course on Mushroom Cultivation Technology**

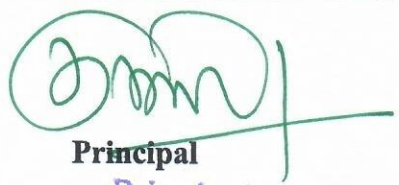
**Mark List – 2021- 2022**

Sr. No	Roll. Number	Name of Student	Class	Theory Out of 50 Marks	Practical Out of 40 Marks	Viva-Voce Out of 10 Marks	Total
1	AA-01	Patil Abheshek Shrishal	B. Sc. I	40	34	4	78
2	AA-02	Ku. Patil Sanika Satteshwer	B. Sc. I	36	36	7	79
3	AA-03	Patil Vihar Vikrant	B. Sc. I	38	34	7	79
4	AA-04	Pawar Vikash Raju	B. Sc. I	32	32	8	72
5	AA-05	Ku. Pawar Rutuja Gopal	B. Sc. I	36	35	5	76
6	AA-06	Pawar Sachin Teju	B. Sc. I	40	36	6	82
7	AA-07	Pawar Satish Gopichand	B. Sc. I	38	34	7	79
8	AA-08	Rajmane Kallesher Nagnath	B. Sc. I	40	32	6	78
9	AA-09	Rajmane Samarth Maruti	B. Sc. I	42	33	5	80
10	AA-10	Rathod Mayur Sanjay	B. Sc. I	40	34	6	80
11	AA-11	Rathod Rutik Rajendra	B. Sc. I	38	34	7	79
12	AA-12	Ku. Rathod Shilpa Subhash	B. Sc. I	40	32	6	78
13	AA-13	Rathod Shrihari Subhash	B. Sc. I	42	33	5	80
14	AA-14	Ku. RathodVaishanvi Bankat	B. Sc. I	40	34	6	80
15	AA-15	Rathod Vishal Vitthal	B. Sc. I	38	35	5	78
16	AA-16	Sakhare Harshad Hanumant	B. Sc. I	36	36	5	77
17	AA-17	Ku. Shaikh Najmin Jinda	B. Sc. I	32	32	6	70
18	AA-18	Ku. Shaikh Reshama Sattar	B. Sc. I	40	32	5	77
19	AA-19	Shaikh Sohel Gafar	B. Sc. I	38	34	5	77
20	AA-20	Ku. Shriramoj Snehal Shrinivas	B. Sc. I	36	25	5	66
21	AA-21	Ku. Sontakke Sneha Narayan	B. Sc. I	36	28	6	70
22	AA-22	Survase Mahesh Shesherao	B. Sc. I	34	28	6	68
23	AA-23	Surywansee Prasenjeet Buddbhusan	B. Sc. I	38	30	5	74
24	AA-24	Ku. Sutar Shubhangi Mahadev	B. Sc. I	32	32	6	70
25	AA-25	Swami Shankarling Mallaya	B. Sc. I	38	29	5	72

  
Co-ordinator

(Dr. D. S. Suryawanshi)

  
Head of Department  
Head Department of Botany  
Jawahar College Andur,  
Tal. Tuljapur, Dist. Osmanabad

  
Principal  
Principal  
Jawahar Arts, Science & Commerce College  
Anadur, Tal. Tuljapur, Dist. Osmanabad



**Shikshan Prasarak Mandal, Anadur's  
Jawahar Arts, Science & Commerce College,  
Anadur, Tq. Tuljapur, Dist- Osmanabad -413603  
Department of Botany**

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**Certificate Course : Mushroom Cultivation Technology**

**Course Outcome**

By successfully completing the course, students will be able to:

- Identify edible types of mushroom
- Gain the knowledge of cultivation of different types of edible mushrooms and spawn production
- Manage the diseases and pests of mushrooms
- Learn a means of self-employment and income generation

  
Head Department of Botany  
Jawahar College Anadur,  
Tal. Tuljapur, Dist. Osmanabad

  
**PRINCIPAL**  
Jawahar Arts, Science & Commerce  
College, Anadur,  
Tal. Tuljapur, Dist. Osmanabad.





**Shikshan Prasarak Mandal, Anadur's  
Jawahar Arts, Science & Commerce College,  
Anadur, Tq. Tuljapur, Dist- Osmanabad -413603  
Department of Botany**

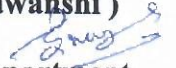
**Certificate Course Final Report**

**On "Mushroom Cultivation Technology -2021-2022"**

Certificate course in **Mushroom Cultivation Technology** is completed successfully with fruitful result. As per notice issued by department of Botany for students to made registration for this course, within little time 35 students registered their names for said course. Then by taking MCQ entrance test, we have selected 25 students. Meanwhile we have completed all the required formalities like CDC approval, syllabus design, and lecture distribution and also to nominate BOS members too. We have engaged 30 hours (15 hours for theory and 15 hours for practical). Meanwhile we have also engaged the doubt session also. Finally after syllabus completion we held final exam for said course and all the students enrolled for food chemistry certificate course successfully passed with good percentage marks. The **Mushroom Cultivation Technology** certificate course question paper is of 100 marks. (25 question carry 2 marks each & 40 marks of Practical & 10 for viva-voce ). Near about 22 students scored more than 40 marks, while remaining students scoring in between 37 to 40 marks. After result declaration we have organized a certificate distribution and award function for the students of course in kind presence of Hon. Principal. Dr. Umakant Chanshetti sir and our staff members' of Botany department.

  
**Co-ordinator**

**(Dr. D. S. Suryawanshi)**

  
**Head of Department**  
Head Department of Botany  
Jawahar College Andur,  
Tal. Tuljapur, Dist. Osmanabad



**Principal  
Principal**

Jawahar Arts, Science & Commerce College  
Anadur, Tal. Tuljapur, Dist. Osmanabad.