

**Rayat Shikshan Sanstha's  
Dr. Patangrao Kadam Mahavidyalaya, Ramanandnagar (Burli).**

**Department of Botany**

**Value Added Course**

**in**

**MUSHROOM CULTIVATION**

**TECHNOLOGY**

**2020-21**

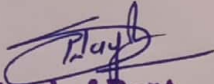
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Department of Botany

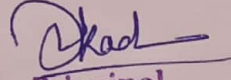
**Notice**

Date: 17/02/2021

All the students of B.Sc. II (Botany) are hereby informed that your theory and practical lectures of **Value Added Course in Mushroom Cultivation Technology** as per time-table are going to start from 22/02/2021. It is compulsory to all who have enrolled for this course to attend the theory and practical lectures and put your attendance.

  
**Head of Dept.**  
**Department of Botany**  
Dr. Patangrao Kadam Mahavidhyalaya,  
Ramanandnagar (Burli)



  
**Principal,**  
Dr. Patangrao Kadam Mahavidyalaya,  
Ramanandnagar (Burli)  
Tal. Palus, Dist. Sangli.

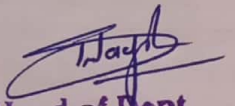
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Department of Botany

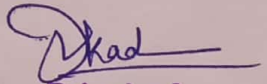
Course-Mushroom Cultivation Technology 2020-21

Time Table

| Period Number | Time           | Day    |          |        |
|---------------|----------------|--------|----------|--------|
|               |                | Monday | Thursday | Friday |
| 1.            | 10:10 to 11:00 | SWW    | SWW      | SWW    |
| 2.            | 11:00 to 2:30  | SWW    | SWW      | SWW    |

  
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Tal. Palus, Dist. Sangli.

## Mushroom Cultivation Technology

### **1) Mushroom – Introduction**

### **2) Edible and Poisonous Mushroom**

- a) Edible mushroom with suitable examples
- b) Poisonous mushrooms
- c) Difference between edible and poisonous mushrooms

### **3) Nutritional and medicinal importance of mushrooms.**

- a) Nutrient composition of button, oyster and paddy straw mushrooms.
- b) Comparative nutritional values – vegetables and mushrooms
- c) Importance of mushrooms – nutritional, medicinal, and others.

### **4) Morphological and taxonomy**

- a) Button mushroom
- b) Oyster mushroom
- c) Paddy straw mushroom
- d) Shitake and Morchella mushroom

### **5) Spawn of mushroom (seeds):**

- a) Spawn, spawning and spawn run.
- b) Spawn types – grain spawn, substrate spawns.
- c) Qualities of good spawn
- d) Techniques of spawn production

### **6) Spawning methods**

### **f) Storage of spawn**

### **6) Button mushroom:**

- a) Species
- b) Growth techniques
- c) Compost – methods of composting and different formulae of compost.
- d) Spawning – spawn rate and spawn.
- e) Casing – materials, sterilization and methods.
- f) Crop management and harvesting-picking, grading and packing of mushroom.

### **7) Oysters mushroom:**

- a) Species
- b) Pre-requisite – substrate – climate
- c) Methods of cultivation – bed preparation spawning
- d) Crop management and spawn run

### **8) Paddy straw mushrooms:**

- a) Species
- b) Pre-requisite substance/substrate, climate
- c) Methods of cultivation – i) Bed preparation ii) Spawning and spawn run

### **9) Disease and pests of mushrooms and their management**

### **10) Preservation and processing of mushrooms**

### **11) Mushroom recipes**

### **12) Marketing of mushrooms –Marketing channels time of sale, packing, transport, and project proposal preparation**

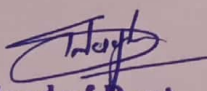
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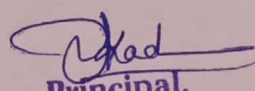
**Value Added Course in  
Mushroom Cultivation Technology 2020-21**

**List of Students**

| Sr. No.           | Name of Student            |
|-------------------|----------------------------|
| 1.                | CHOUGULE NAMRATA SUNIL     |
| 2.                | DESHMUKH SANJIVANI BHASKAR |
| 3.                | GURAV VAISHNAVI DADASO     |
| 4.                | JADHAV KAJAL SUNIL         |
| 5.                | JADHAV MAITHILI SATISH     |
| 6.                | KAMBLE KIRAN DEVANAND      |
| 7.                | KHILARE RUTUJA PRAKASH     |
| 8.                | KOLI MAHESHVARI MADHUKAR   |
| 9.                | LAD PRATIK RAJENDRA        |
| 10.               | LAD SOURABH HANMANT        |
| 11.               | MULLA RESHMA RAHIMAN       |
| 12.               | NALAWADE AKANKSHA ANIL     |
| 13.               | PATHAN MUJIB JAMIL         |
| 14.               | PATIL MAYUR MANOHAR        |
| 15.               | PATIL RUTUJA KRUSHNRAO     |
| 16.               | PATIL SAURABH DHAIRYASHEEL |
| 17.               | PATIL SNEHAL VIKAS         |
| 18.               | PAWAR OMKAR PRAKASH        |
| 19.               | PAWAR SOMNATH BABAN        |
| 20.               | PAWAR SURAJ RAVINDRA       |
| 21.               | PAWAR SWAPNIL PRAMOD       |
| 22.               | PAWAR TEJASWINI MADHUKAR   |
| 23.               | PHALLE SWARUPA SANJAY      |
| 24.               | RADE HARSHAD JAYAWANT      |
| 25.               | RANKHAMBE PRIYANKA SHIVAJI |
| 26.               | SALUNKHE NILESH BHANUDAS   |
| 27.               | SATHE MANGAL MALHARI       |
| 28.               | SAWANT NILESH SUKHDEV      |
| 29.               | SAWANT SHWETA VASUDEV      |
| 30.               | SHINDE SHWETA DILIP        |
| Male=12 Female=18 |                            |

  
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**Attendance**

| Sr. No. | Name of Student            | 22/02 | 23/02 | 24/02 | 25/02 | 26/02 | 27/02 | 01/03 | 02/03 | 03/03 | 04/03 | 05/03 | 06/03 | 07/03 | 08/03 | 09/03 | 10/03 | 15/03 | 16/03 | 17/03 | 18/03 | 19/03 | 20/03 | 21/03 | 22/03 | 23/03 | 24/03 | 25/03 | 26/03 |  |  |
|---------|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|
|         |                            | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    | 21    |  |  |
| 1.      | CHOUGULE NAMRATA SUNIL     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     |       |  |  |
| 2.      | DESHMUKH SANJIVANI BHASKAR | P     | P     | P     | P     | A     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     |       |  |  |
| 3.      | GURAV VAISHNAVI DADASO     | P     | P     | P     | A     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | A     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     |       |  |  |
| 4.      | JADHAV KAJAL SUNIL         | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | A     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     |       |  |  |
| 5.      | JADHAV MAITHILI SATISH     | P     | A     | P     | P     | P     | A     | P     | P     | P     | A     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | A     | P     | P     | P     | P     | P     | P     |       |  |  |
| 6.      | KAMBLE KIRAN DEVANAND      | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     |       |  |  |
| 7.      | KHILARE RUTUJA PRAKASH     | P     | P     | P     | P     | P     | P     | A     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     |       |  |  |
| 8.      | KOLI MAHESHVARI MADHUKAR   | A     | P     | P     | P     | P     | P     | A     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     |       |  |  |
| 9.      | LAD PRATIK RAJENDRA        | P     | P     | P     | P     | P     | P     | P     | A     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | A     | P     | P     |       |  |  |
| 10.     | LAD SOURABH HANMANT        | P     | P     | P     | P     | A     | P     | P     | P     | A     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | A     | P     | P     |       |  |  |
| 11.     | MULLA RESHMA RAHIMAN       | A     | P     | P     | P     | P     | P     | P     | P     | P     | A     | A     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     |       |  |  |
| 12.     | NALAWADE AKANKSHA ANIL     | A     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     | P     |       |  |  |



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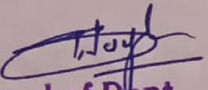
**Department of Botany**

**Value Added Course in  
Mushroom Cultivation Technology 2020-21**

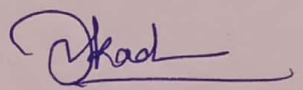
### **Programme Outcomes**

After successful completion of this course,

1. Student can also be equipped with additional skills to meet the challenges in future.
2. Student will aspire to become a Mushroom Cultivator and get employment accordingly.

  
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Question Paper

Solve the following multiple choice questions.

1. Mushroom cultivation is not useful in  
A. recycling in agricultural waste  
B. biogas production  
C. biological control of crop production  
D. preventing cancer
2. Zygospor of Mucor is  
A. Haploid  
B. Thick-wall resting spore  
C. Asexual spore  
D. Spore that germinates to form zoospores
3. Which one is an edible fungus?  
A. Mucor  
B. Agaricus  
C. Penicillium  
D. Rhizopus
4. The deadliest mushroom is  
A. Agaricus  
B. Amanita  
C. Pleurotus  
D. Volvariella
5. Mushroom is an ..... crop.  
A. indoor  
B. outdoor  
C. both a & b  
D. none of these
6. Mushrooms are .....  
A. vegetarian  
B. both a& b  
C. non-vegetarian  
D. none of the above
7. Mushrooms are very nutritious, rich in proteins, fiber and have .....  
A. citric acid  
B. amino acid  
C. uric acid  
D. folic acid
8. White button mushroom is a type of .....  
A. poisonous mushroom  
B. edible mushroom  
C. tasty mushroom  
D. rare mushroom
9. Milky mushroom is a type of ..... species of mushroom  
A. edible  
B. poisoned  
C. not edible  
D. none of the above
10. .... mushroom can be grown artificially.  
A. pearl  
B. button  
C. oyster  
D. edible
11. .... provide loans for establishment of mushroom units  
A. NABARD  
B. National Horticulture Board and Banks  
C. National Horticulture Board and Banks  
D. both a&b d none f these

12. Mushrooms are rich with  
 A. vitamin B. carbohydrate  
 C. fiber D. minerals
13. Mushrooms are excellent source of  
 A. vitamin B. carbohydrate  
 C. protein D. minerals
14. .... helps lower cholesterol and is important for the digestive system  
 A. vitamin B. carbohydrate  
 C. minerals D. fiber
15. Edible mushrooms are consumed by humans for their nutritional value and they are Occasionally consumed for their supposed .....  
 A. medicinal value B. traditional value  
 C. both a & b D. none of the above
16. To raise the moisture content of the mushroom by adding  
 A. sterile water B. distilled water  
 C. hot water D. cold water
17. Mushrooms do not require sun light for their growth.  
 A. TRUE B. FALSE  
 C. sometimes D. depends on conditions
18. Mushroom is .....  
 A. saprophytic fungi B. autotrophic algae  
 C. heterotrophic fungus D. none of the above
19. Media used for the cultivation of spore is  
 A. sterile agar media B. normal agar media  
 C. liquid media D. solid media
20. .... Mushroom is scientifically known as pleurotus  
 A. button B. oyster  
 C. both a and b D. none of the above
21. Ph of the media for mushroom cultivation is .....  
 A. Acidic B. alkali  
 C. neutral D. all the above
22. Which substance can add to the media for adjusting pH  
 A. Chalk powder B. rice powder  
 C. wheat powder D. maize powder
23. Autoclaving temperature is .....  
 A.  $121^{\circ}\text{C}$  B.  $128^{\circ}\text{C}$   
 C.  $168^{\circ}\text{C}$  D.  $134^{\circ}\text{C}$
24. Steaming is one of the --- method  
 A. Sterilization B. Pasteurization  
 C. Decontamination D. All the above
25. After sterilization an object is referred to as being ---  
 A. Septic B. Aseptic  
 C. Both a and b D. None of these

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**Mushroom Cultivation Technology: 2020-21**  
**Marklist**

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| Sr. No. | Name of Student            | Marks<br>(Out of 50) |
|---------|----------------------------|----------------------|
| 1.      | CHOUGULE NAMRATA SUNIL     | 40                   |
| 2.      | DESHMUKH SANJIVANI BHASKAR | 44                   |
| 3.      | GURAV VAISHNAVI DADASO     | 42                   |
| 4.      | JADHAV KAJAL SUNIL         | 32                   |
| 5.      | JADHAV MAITHILI SATISH     | 36                   |
| 6.      | KAMBLE KIRAN DEVANAND      | 40                   |
| 7.      | KHILARE RUTUJA PRAKASH     | 42                   |
| 8.      | KOLI MAHESHVARI MADHUKAR   | 30                   |
| 9.      | LAD PRATIK RAJENDRA        | 46                   |
| 10.     | LAD SOURABH HANMANT        | 44                   |
| 11.     | MULLA RESHMA RAHIMAN       | 40                   |
| 12.     | NALAWADE AKANKSHA ANIL     | 34                   |
| 13.     | PATHAN MUJIB JAMIL         | 36                   |
| 14.     | PATIL MAYUR MANOHAR        | 34                   |
| 15.     | PATIL RUTUJA KRUSHNRAO     | 41                   |
| 16.     | PATIL SAURABH DHAIRYASHEEL | 44                   |
| 17.     | PATIL SNEHAL VIKAS         | 36                   |
| 18.     | PAWAR OMKAR PRAKASH        | 41                   |
| 19.     | PAWAR SOMNATH BABAN        | 44                   |
| 20.     | PAWAR SURAJ RAVINDRA       | 40                   |
| 21.     | PAWAR SWAPNIL PRAMOD       | 38                   |
| 22.     | PAWAR TEJASWINI MADHUKAR   | 42                   |
| 23.     | PHALLE SWARUPA SANJAY      | 38                   |
| 24.     | RADE HARSHAD JAYAWANT      | 38                   |
| 25.     | RANKHAMBE PRIYANKA SHIVAJI | 36                   |
| 26.     | SALUNKHE NILESH BHANUDAS   | 40                   |
| 27.     | SATHE MANGAL MALHARI       | 38                   |
| 28.     | SAWANT NILESH SUKHDEV      | 42                   |
| 29.     | SAWANT SHWETA VASUDEV      | 40                   |
| 30.     | SHINDE SHWETA DILIP        | 46                   |



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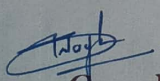
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NAAC Accreditation 'A' Grade CGPA 3.02

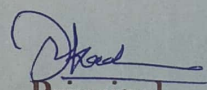
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## CERTIFICATE

This is to certify that Mr./Miss. \_\_\_\_\_ of B.Sc. II,  
Dr. Patangrao Kadam Mahavidyalaya Ramanandnagar (Burli), has successfully  
completed Value Added Course in 'Mushroom Cultivation Technology' run by  
Department of Botany (from 22 /02 /2021 to 03 /04 /2021 ) for the academic year  
2020-21.

  
Course Coordinator



  
Principal

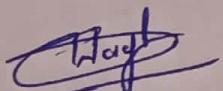
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**Department of Botany**

**Value Added Course in  
Mushroom Cultivation Technology**

**Annual Report 2020-21**

Department of Botany is consistently engaged in running Value Added Course in Mushroom Cultivation Technology. For the said course there were total 30 students from B.Sc. Part II have enrolled. With the help of knowledge acquired from this course, students will be able to plant their own small scale industry.

  
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