



**S.G.V.V.T's**  
**SRI GAVISIDDHESHWAR ARTS SCIENCE AND COMMERCE COLLEGE,**  
**KOPPAL**

(Affiliated to Vijayanagara Sri Krishnadevaraya University, Ballari)

**NAAC Accredited 'B' Grade**

**Certificate Course**  
**In**  
**Mushroom Cultivation Technology**

**By**  
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Assistant Professor  
Department of Botany  
S.G.V.V.T.s S.G. Arts, Science and Commerce College Koppal

**2018-19**

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## **INSTITUTIONAL REGULATIONS GOVERNING THE CERTIFICATE COURSE**

There are hundreds of identified species of fungi which, since time immemorial, have made a significant global contribution to human food and medicine. Cultivated mushrooms have now become popular all over the world. Therefore, Department of Botany has to started certificate course in Mushroom Cultivation Technology to develop self employment skill and awareness among the students for self employability.

This certificate course highlights the many opportunities to, and benefits of, increasing food and income security through incorporating mushroom into livelihoods strategies. Case studies of successful outcomes from growing mushrooms as a livelihood demonstrate the benefits arising from mushroom production in terms of income, food security and consumption of healthy food. Sources of additional information and technical support for any follow up are identified at the end of the certificate course.

The certificate course recognises the valuable contribution that wild edible fungi make to the livelihoods of rural people in both tropical and temperate zones. However, this course does not focus on wild harvest production, but it does recognize that the subsequent processing, packaging and marketing of mushrooms is similar for both cultivated and wild harvest types.

### **OBJECTIVES OF THE CERTIFICATE COURSE**

- To strengthen the promotion of mushroom cultivation as a small scale industry.
- To increase the production and consumption of mushrooms.
- To help to create new employment opportunities for rural youth.
- To empower youth with entrepreneurial skills through the production and sale of mushrooms.
- To exploit possibilities and assist in building up a mushroom industry that will make a significant contribution to the general economy.

**Title of the course: Mushroom Cultivation Technology**

**Course Code: BMCT**

**Duration of the Course: 35 hours (Includes both theory and Practicals)**

**Eligibility for the Course**

✓ Candidates for admission to Certificate course in Mushroom Culture could possess a PUC Science with **Biology** as one of the subjects.

or

✓ Candidate studying in B.Sc. with **Botany** as one of the optional subjects.

**Student intake:** 40 students.

**Scheme of the course:**

1. Lecture presentation      2. Practicals                      3. Field visit

Classes are conducted by using power point presentations and black board teaching. Practical classes may be conducted by inviting experts in the practical to provide complete information and process of mushroom cultivation in the field.

**Scheme of Examination:**

Maximum marks for the course is 100 (includes both theory and practical). Theory paper for maximum of 60 marks with minimum of 20 marks for passing. Practical examination of 2 hours duration for a maximum of 25 marks with minimum of 20 marks for passing and 15 marks for Assignment.

## **BOARD OF ADVISORY COMMITTEE**

<b>Prof. M. S. Damdi,</b>	Principal, S.G. College, Koppal	- Chairman
<b>Dr. Channabasava A,</b>	Asst. Professor in Botany	- Coordinator
<b>Dr. Basavaraj Pujar</b>	Asso. Prof. in Kannada	- Member
<b>Dr. Dayanand Salunke</b>	Asso. Prof. in Hindi	- Member
<b>Prof. Sharanabasappa B.</b>	Asst. Prof. in Economics	- Member
<b>Shri. Prashant K.</b>	Asst. Professor in Zoology	- Member
<b>Shri. Mahesh Biradar</b>	Librarian	- Member
<b>Shri. Vinod. C.M.</b>	Physical Director	- Member

### **External Members**

**Dr. B.K. Bhadriprasad,** Entomologist , AEEC, Koppal

**Dr. V.S. Bheemareddy,** Asso. Professor in Botany, J.S.S. College, Dharwad

**Prof. S.N. Emmi,** Asso. Professor in Botany, KLE's H.S.K. Arts & S.K. Sci. inst. Hubli

## COURSE SYLLABUS

**Theory: 15 hrs**

**Practical: 20 hrs**

**Chapter I: Mushroom morphology:** Different parts of a typical mushroom, Key to differentiate Edible from Poisonous mushrooms. 1 hr

**Chapter II: Mushroom Classification:** Based on Structure and texture of fruit bodies-gilled fungal & pore fungal, Fruit bodies and spores- Ainsworth *et al.*, (1973) classification. 1 hrs

**Chapter III: Nutrient Profile of Mushroom:** protein, amino acids, calorific values, carbohydrates, fats, vitamins & minerals. 2 hrs

**Chapter IV: Health benefits of Mushroom:** Antiviral value, antibacterial effect, antifungal effect, anti-tumour effect, hematological value cardiovascular & renal effect, in therapeutic diets, adolescence, for aged persons & diabetes mellitus. 2 hrs

**Chapter V: Cultivation System & Farm design:** Principles of mushroom farm layout- location of building plot, design of farm, bulk chamber, composting platform, equipments & facilities , pasteurization room & growing rooms. 2 hrs

**Chapter VI: Spawn & Spawning:** Facilities required for spawn preparation, Preparation of spawn substrate, preparation of pure culture, media used in raising pure culture, culture maintenance and storage of spawn. 3 hrs

**Chapter VII: Cultivation of Button, Oyster and Straw Mushrooms:** Collection of raw materials, compost & composting, spawn & spawning, casing & case run, cropping & crop management, picking & packing. 2 hrs

**Chapter VIII: Post Harvest Management:** Post harvest packaging and Management, Disease and Pest Management 2 hrs

### **Practicals:**

1. Identification of mushrooms: Poisonous and Edible mushroom (Chart/Spceimens)
2. Preparation of Pure culture
3. Preparation of spawn
4. Mushroom cultivation at small scale level
5. Field Visit

## REFERENCE BOOKS

- Tripathi, D.P.(2005): Mushroom Cultivation, Oxford & IBH Publishing Co. PVT.LTD, New Delhi.
- Pathak Yadav Gour (2010): Mushroom Production and Processing Technology, Published by Agrobios (India).
- S.Kannaiyan& K.Ramasamy (1980): A hand book of edible mushroom,. Today & Tomorrows printers & publishers, New Delhi.
- Nita Bahl, Handbook on Mushrooms, oxford & IBH Publishing Co.

S.G.V.V.T's  
Sri Gavisiddeshwar Arts, Science & Commerce College, Koppal  
Certificate Course Examination – 2017  
Paper Title: **Mushroom Cultivation Technology (Theory)**

Time : 02 Hours

Max Marks : 60

Part A

I. Answer all the following questions in one word or sentence 5 X 1 = 05

- 1.
- 2.
- 3.
- 4.
- 5.

Part B

II. Answer any five of the following questions in four to six sentences 3 X 5 = 15

- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.

Part C

III. Answer any five of the following questions in more than ten sentences 7 X 5 = 35

- 14.
- 15.
- 16.
- 17.
- 18.
- 19.
- 20.



Model Question Paper

**BOTMCT/17-18**

**S.G.V.V.T's**

**Sri Gavisiddeshwar Arts, Science & Commerce College, Koppal**

**Certificate Course Examination – 2017**

**Paper Title: Mushroom Cultivation Technology (Practical)**

Time : 02 Hours

Max Marks : 25

Question 1: Identify and comment on 10

a) Specimen/Chart

b) Instrument used in Mushroom cultivation technology

Question 2: Identify and classify 05

Question 3: Preparation of spawn/ raw material/ mushroom cultivation 10

**S.G.V.V. Trust's**

**Sri Gavisiddeshwar Arts, Science and Commerce College, Koppal-583231**

**DEPARTMENT OF BOTANY**

**Certificate course in Mushroom Cultivation Technology**

**Date: 28-10-2017**

**NOTICE**

This is to inform to all the students of B.Sc., that the Department of Botany is commencing a Certificate Course in ‘**Mushroom Cultivation Technology**’. Therefore, interested students are hereby informed to enroll their names to Program Coordinator **Dr. Channabasava A.**, Department of Botany, **on or before ore 19-12-2017**. The **classes will commence from December 26, 2018**. A valid certificate will be issued after completion of the said course.

**Time Table**

<b>Day</b>	<b>Time</b>	<b>Venue</b>
Wednesday,	11.15 -12.15 pm	L.H. 22
Thursday	11.15 -12.15 pm	L.H.20
Friday	11.15 -12.15 pm	L.H.20
Saturday	11.15 -12.15 pm	L.H. 18

Course coordinator

Principal



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**GAVIMATH CAMPUS, KOPPAL-583231**

**DEPARTMENT OF BOTANY**

**FEEDBACK FORM**

Name of the certificate course:

Date:

Course Code:

Kindly rate the following criterion with Tick mark [ ✓ ]

Sl. No.	Criterion	Ratings				
		1	2	3	4	5
1.	Content of the course					
2.	Content delivery and interaction					
3.	Knowledge gained during the course					
4.	Demonstration of mushroom cultivation					
5.	Contemporary relevance of the Course					
6.	Teaching Methods, Practical and Quality					

5 - Excellent    4 – Very Good    3 – Good    2 – Satisfactory    1 – Poor

Suggest Improvements for the course in future or opinion of the course

Thank you for your feedback

Student Signature

S.G.V.V.T's

**Sri Gavisiddeshwar Arts, Science and Commerce College  
Gavimath Campus, Koppal-583 231, Karnataka**

**(Affiliated To V.S.K. University, Ballari)**

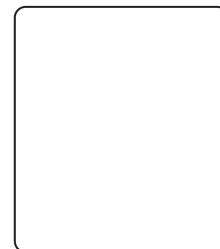
**Re-Accredited by NAAC with 'B' grade**

**Under the IQAC initiative**

**∞ Certificate ∞**

Sl.No. :.....

Reg. No:.....



*This is to certify that Mr./Ms..... of  
..... semester has successfully completed the institutional  
certificate course for 35 hours on 'Mushroom Cultivation  
Technology' conducted by the Department of Botany.*

*He obtained the '.....' grade during the academic  
year 2018-19.*

Course Co-ordinator  
Dr. Channabasava A.

IQAC Co-ordinator  
Dr. J.S. Patil

Principal  
Prof. M.S. Dadmi

Result:

Grade	Score
O	Above 90%
A	Above 80% below 90%
B	Above 70% below 80%
C	Above 60 below 70%
D	Below 60%

